STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING										AMENI	FOI DED REPO	RM 3		
APPLICATION FOR PERMIT TO DRILL								1. WELL NAME and NUMBER NBU 921-21A3AS						
2. TYPE	OF WORK	DRILL NEW WELL	REENTER	P&A WELL () DEEPE	EN WELL ()			3. FIELD OR WILDO	CAT NATURAL	BUTTES		
4. TYPE	OF WELL	Ga	ıs Well Co	albed Methan	ne Well: NO					5. UNIT or COMMU	NITIZAT: NATURAL		EMENT	NAME
6. NAME	OF OPERATO	R								7. OPERATOR PHON	NE			
8. ADDR	ESS OF OPER		KERR-MCGEE OIL							9. OPERATOR E-MA				
10 MTN	ERAL LEASE N	IIIMRFR	P.O. Box 173779		, 80217 ERAL OWNE	PSHTP				mary.mo		@anadark	o.com	
(FEDERA	AL, INDIAN, O	UTU 0576		FEDERA	_	DIAN (STATE	FEE (FEDERAL INC	DIAN 📵	STATE	~~	EE 💮
13. NAM	E OF SURFAC	E OWNER (if box	(12 = 'fee')							14. SURFACE OWNE	ER PHON	E (if box	12 = 'fe	e')
15. ADD	RESS OF SUR	FACE OWNER (if	box 12 = 'fee')							16. SURFACE OWNE	ER E-MA	L (if box	12 = 'fe	e')
		E OR TRIBE NAM	E		END TO COM		PRODUC	TION FROM		19. SLANT				
(if box 1	2 = 'INDIAN') Ute Tribe		YES (Comminglin	ng Applica	tion) NO [)	VERTICAL DIR	RECTIONA	L® F	HORIZONTAL 🗍	
20. LO	ATION OF WI	ELL		FOOTAGES		QTR-	·QTR	SECTIO	ON	TOWNSHIP	RA	NGE	MEF	RIDIAN
LOCATI	ON AT SURFA	CE	101	7 FNL 833 F	EL	NEN	NE	21		9.0 S	21	.0 E		S
Top of I	Jppermost Pr	oducing Zone	841	FNL 670 F	EL	NEN	NE	21		9.0 S	21	.0 E		S
At Tota	l Depth		841	FNL 670 F	NL 670 FEL NENE		21	9.0 S 2:		21	21.0 E S		S	
21. COU	NTY	UINTAH		22. DIS	22. DISTANCE TO NEAREST LEASE LINE (Feet) 670				23. NUMBER OF ACRES IN DRILLING UNIT 1480					
					25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 350				26. PROPOSED DEP		TVD: 101	90		
27. ELEV	ATION - GRO	UND LEVEL 4829		28. BON	28. BOND NUMBER WYB000291				29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496				ICABLE	
				Hole	e, Casing,	and Cen	nent In	formation						
String	Hole Size	Casing Size	Length	Weight	Grade &	Thread	Max	Mud Wt.		Cement		Sacks	Yield	Weight
Surf	12.25	9.625	0 - 2630	36.0	J-55	LT&C		0.2	Class G			215	1.18	15.6
Prod	7.875	4.5	0 - 9661	11.6	1.00	LT&C		11.6	Dro	Class G emium Lite High Str	ronath	380 430	3.38	15.6
FIU	7.673	4.5	9661 - 10201			10 LT&C		11.6	FIC	50/50 Poz	engui	1400	1.31	14.3
		<u> </u>	<u> </u>		A.	ттаснм	ENTS	<u> </u>						
	VERIFY	THE FOLLOWI	NG ARE ATTA	CHED IN A	CCORDAN	CE WITH	H THE U	TAH OIL A	ND G	GAS CONSERVATI	ON GEN	IERAL R	ULES	
✓ w	/ELL PLAT OR	MAP PREPARED	BY LICENSED S	URVEYOR O	R ENGINEE	R [r ∕ cor	MPLETE DRI	LLING	G PLAN				
П	FIDAVIT OF	STATUS OF SURI	FACE OWNER AG	REEMENT ()	IF FEE SURF	ACE)	FOR	M 5. IF OPE	RATO	R IS OTHER THAN T	HE LEASI	OWNER		
DRILLE		SURVEY PLAN (I	F DIRECTIONAL	LY OR HORI	ZONTALLY	Ţ.	г тор	OGRAPHICA	L MAI	P				
NAME [Danielle Piernot		TITLE R	egulatory An	alyst			PHONE 72	0 929-	6156				
SIGNAT	URE		DATE 0	7/30/2009			EMAIL danielle.piernot@anadarko.com							
APT NUMBER ASSIGNED 43047506100000 APPROVAL														

API Well No: 43047506100000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER

Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 921-21A3AS API Well Number: 43047506100000

Lease Number: UTU 0576 **Surface Owner:** INDIAN **Approval Date:** 8/11/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Cause No. 173-14 commingling the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

Gil Hunt

Associate Director, Oil & Gas

Die Hunt

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURGE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576			
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRULE TO THE OR TRULE TO THE OR TRUE TO THE OR T						
	sals to drill new wells, significantly deepe igged wells, or to drill horizontal laterals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-21A3AS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047506100000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PH treet, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 9 720 929-6007	9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL QTR/QTR, SECTION, TOWNSHI			COUNTY: UINTAH STATE:			
	Township: 09.0S Range: 21.0E Meridian:	S	UTAH			
CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPC	ORT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR			
NOTICE OF INTENT Approximate date work will start: 8/12/2010	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
0,12,2010	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATION				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION			
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK			
SPUD REPORT	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON			
	☐ TUBING REPAIR		☐ WATER DISPOSAL			
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION			
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:			
Kerr-McGee Oil & G extension to this A	MPLETED OPERATIONS. Clearly show all posts of the Maximum time all with any questions and/or co	e) respectfully requests lowed. Please contact th	an			
			7			
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 8/12/2010				



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506100000

API: 43047506100000 Well Name: NBU 921-21A3AS

Location: 1017 FNL 0833 FEL QTR NENE SEC 21 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/11/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

uire revi: • If loca	tion as submitted in t sion. Following is a ch ated on private land, h ed?	ecklist of so	me items related to	the application	n, which sho	uld be verified.
-	any wells been drilled	in the vicin	ity of the proposed v	well which wo	uld affect the	spacing or
	requirements for this					
	nere been any unit or s proposed well?			hat could affeo	ct the permitt	ing or operation
	there been any chang the proposed location			ownership, or	rightof- way	, which could
• Has th	ne approved source of	water for d	rilling changed? 🔵	Yes 📵 No		
	there been any physic le in plans from what				oute which w Yes 🍺 No	ill require a
• Is bor	nding still in place, wh	ich covers t	his proposed well?	Yes	Approve No Utah Div Oil, Gas a	
nature:	Danielle Piernot	Date:	8/12/2010			
Title:	Regulatory Analyst Re	presenting:	KERR-MCGEE OIL & G	AS ONSHOR ₽ A		st 23, 2010
	- , ,			,	The co	/[/

Sig

By: Dollar

Form 3160-3 (August 2007)

RECEIVED

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REE

Lease Serial No. UTU0576

APPLICATION FOR PERMIT	TO DRILL OR REELDER. V	6. If Indian, Allottee or T	ribe Name	
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreeme 891008900A	ent, Name and No.	
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ O	ther Single Zone Multiple Zone	8. Lease Name and Well NBU 921-21A3AS	No.	
2. Name of Operator Contact KERRMCGEE OIL&GAS ONSHORE-Mail: Danielle	: DANIELLE E PIERNOT e.Piernot@anadarko.com	9. API Well No.		
3a. Address PO BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156	10. Field and Pool, or Exp NATURAL BUTTES	oloratory	
4. Location of Well (Report location clearly and in accord	lance with any State requirements.*)	11. Sec., T., R., M., or BII	c. and Survey or Area	
At surface NENE 1017FNL 833FEL 4	0.02606 N Lat, 109.55028 W Lon	Sec 21 T9S R21E I		
At proposed prod. zone NENE 841FNL 670FEL 40				
14. Distance in miles and direction from nearest town or posi APPROXIMATELY 28 MILES SOUTHEAST OF	OURAY, UTAH	12. County or Parish UINTAH	13. State UT	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 670 FEET	16. No. of Acres in Lease 1480.00	17. Spacing Unit dedicated	d to this well	
 Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth	20. BLM/BIA Bond No. on file		
APPROXIMATELY 370 FEET	10201 MD 10190 TVD	WYB000291		
21. Elevations (Show whether DF, KB, RT, GL, etc. 4829 GL	22. Approximate date work will start 08/17/2009	23. Estimated duration 60-90 DAYS		
	24. Attachments		· · · · · · · · · · · · · · · · · · ·	
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached to	this form		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of 	4. Bond to cover the operation I tem 20 above).	ons unless covered by an exist	`	
25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-61	56	Date 07/30/2009	
Title REGULATORY ANALYST			<u> </u>	
Approved by (Signature)	Name (Printed/Typed)	, , , , , , , , , , , , , , , , , , , ,	Date	
Title Assignant Field Manager	Jerry Kenczka		MAY 2 4 201	
Lands & Mineral Resources	VERNAL FIELD OFFICE			
Application approval does not warrant or certify the applicant ho operations thereon. Conditions of approval, if any, are attached.				
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, no States any false, fictitious or fraudulent statements or representations.	nake it a crime for any person knowingly and willfully to ions as to any matter within its jurisdiction.	o make to any department or	agency of the United	

Additional Operator Remarks (see next page)

Electronic Submission #72658 verified by the BLM Well Information System For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal Committed to AFMSS for processing by GAIL JENKINS on 08/03/2009 ()

JUN 0 8 2011

RECEIVED

DIV. OF OIL, GAS & MINING

NOS ARD POSTED 08-10-12009

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NOTICE OF APPROVAL 096XJ5643 AE

NO NOS CONDITIONS OF APPROVAL ATTACHED



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

Kerr McGee Oil & Gas Onshore LP

NBU 921-21A3AS

Location: Lease No: **NENE, Sec 21, T9S R21E**

o: UTU-0576

API No: 43-047-50610

Agreement:

Natural Buttes Unit

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)		The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut vn opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	- 	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: NBU 921-21A3AS 5/19/2011

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC CONDITIONS OF APPROVAL

- Paint old and new facilities "Shadow Gray."
- Move the existing pipeline off the damage area of the well pad.
- Construct diversion ditches around the well pad.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey would take place during raptor nesting season (January 1 through September 30) and conduct is operations according to specifications in the guidelines.
- If project construction operation are not initiated before June 17, 2010. KMG should conduct
 additional biological surveys in accordance with the guidelines specified in the USFWS Rare
 Plant Conservation Measurements for Uinta Basin Hookless cactus (See Appendix D) and
 conduct its operations according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations
 of this document and in the Application for Permit to Drill. A closed drilling system shall be used
 in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe
 Technician, BIA, and other agencies involved.
- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

Page 3 of 7 Well: NBU 921-21A3AS 5/19/2011

- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its
 original state. The disturbed area will be reseeded with desirable perennial vegetation. If
 necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable
 seed mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious
 weeds spread from the project area onto adjoining land, the company will also be responsible
 for their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002. If active raptor nest are indentified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uinta basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Gui9ldlines (See Appendix D).
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).
- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all
 construction must cease and immediate notification to the Energy and Minerals Department and
 the Cultural Rights Protection Officer.

Page 4 of 7 Well: NBU 921-21A3AS 5/19/2011

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL

A Gama Ray Log shall be run from TD to surface.

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.
- FIT test. Variance granted due to well known geology and problems that can occur with FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be

Page 5 of 7 Well: NBU 921-21A3AS 5/19/2011

performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
 is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
 Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 921-21A3AS 5/19/2011

OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

Page 7 of 7 Well: NBU 921-21A3AS 5/19/2011

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
 Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
 and all future meter proving schedules. A copy of the meter calibration reports shall be
 submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
 standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
 measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
 to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
 first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
 adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
 sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of
 a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval
 may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior
 approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
 before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576			
SUNDF	SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr					
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen ex igged wells, or to drill horizontal laterals. Use	isting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-21A3AS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047506100000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 21	IP, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT	, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
Kerr-McGee Oil & G extension to this A	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION DMPLETED OPERATIONS. Clearly show all pertinas Onshore, L.P. (Kerr-McGee) in APD for the maximum time allow with any questions and/or comm	respectfully requests an red. Please contact the nents. Thank you.				
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 7/11/2011				



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506100000

API: 43047506100000 **Well Name:** NBU 921-21A3AS

Location: 1017 FNL 0833 FEL QTR NENE SEC 21 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/11/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

	ated on private land, has ted? Yes No	the ownership changed, if so, has the surface agreement been
	any wells been drilled in t requirements for this loc	the vicinity of the proposed well which would affect the spacing or cation? (Yes (No
	here been any unit or othe s proposed well? Yes	er agreements put in place that could affect the permitting or operation $lacksquare$ No
	there been any changes to the proposed location?(o the access route including ownership, or rightof- way, which could Yes 📵 No
• Has th	he approved source of wa	ter for drilling changed? 🥛 Yes 📵 No
		changes to the surface location or access route which will require a discussed at the onsite evaluation? () Yes (i) No
• Is bor	nding still in place, which	covers this proposed well? Yes No
Signature:	Andy Lytle	Date: 7/11/2011

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 1-9620 Approval of this: 43047506100000

Action is Necessary

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	-	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576			
SUNDRY NOTICES AND REPORTS ON WELLS 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE						
Do not use this form for propos bottom-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen ogged wells, or to drill horizontal laterals. Us	existing wells below current se APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
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QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 21	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	☐ CASING REPAIR			
Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME			
10/19/2011	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK			
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON			
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION			
керогі Date:	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER:			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The Operator requests approval for changes in the drilling operations for this well. Changes include a FIT waiver, casing changes, deepening to the Blackhawk formation (resides in Mesaverde formation) and closed loop drilling options. Please see the attachment for details. Thank you. Approved by the Utah Division of Oil, Gas and Mining Date: 11/01/2011 By:						
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 10/19/2011				

NBU 921-21A PAD

Drilling Program

1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-21A3AS

Surface: 1017 FNL / 833 FEL NENE BHL: 841 FNL / 670 FEL NENE

Section 21 T9S R21E

Unitah County, Utah Mineral Lease: UTU-0576

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1599	
Birds Nest	1954	Water
Mahogany	2291	Water
Wasatch	4981	Gas
Mesaverde	7955	Gas
MVU2	8912	Gas
MVL1	9419	Gas
Sego	10197	Gas
Castlegate	10274	Gas
MN5	10635	Gas
TVD	11235	
TD	11246	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

NBU 921-21A PAD Drilling Program 2 of 7

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 11235' TVD, approximately equals 7,415 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,995 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 921-21A PAD Drilling Program
3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KM well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 921-21A PAD

Drilling Program

4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. <u>Other Information:</u>

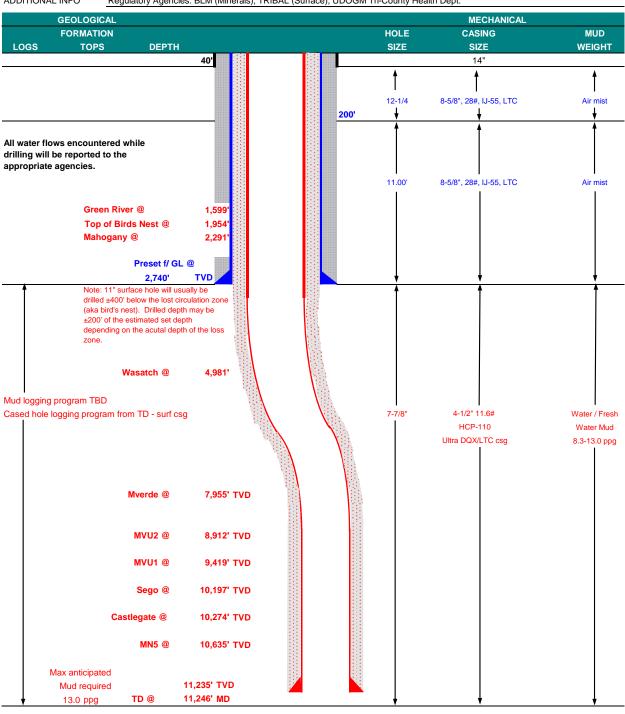
Please refer to the attached Drilling Program.

NBU 921-35H Pad Drilling Program 5 of 7



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERF	R-McGEE O	IL & GAS ONSH	IORE LP		DATE	October 1	9, 2011		
WELL NAME NBU	J 921-21A	3AS			TD	11,235'	TVD	11,246' MD	
FIELD Natural Buttes	COUNTY Uintah STATE Utah		h	FINISHED ELEVATION		4829.1			
SURFACE LOCATION	NENE	1017 FNL	833 FEL	Sec 21	T 9S	R 21E			
	Latitude:	40.026061	Longitude:	-109.55	0279		NAD 83		
BTM HOLE LOCATION	NENE	841 FNL	670 FEL	Sec 21	T 9S	R 21E			
	Latitude:	40.026545	Longitude:	-109.54	9695		NAD 83		
OBJECTIVE ZONE(S) BLACKHAV		WK							
ADDITIONAL INFO Regulatory		Agencies: BLM	(Minerals), TRIB	AL (Surfac	e), UDO	3M Tri-County	Health Dept.		



Drilling Program

LTC

1.19

6 of 7

DQX

N/A

N/A

367,174

3.51

TENSION

DESIGN FACTORS

1.14

348,000

5 18

279,000

4.81



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

HCP-110

SIZE **INTERVAL** GR. CPLG. **BURST COLLAPSE** CONDUCTOR 14" 0-40' 1,880 3,390 8-5/8" IJ-55 **SURFACE** 2.740 28.00 1.47 0 LTC to 1.96 8,650 10,690 HCP-110 **PRODUCTION** 4-1/2" 0 5,000 11.60 DQX 1.14 to 1.19

11,246

to

Surface Casing:

NBU 921-35H Pad

CASING PROGRAM

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

5.000

4-1/2

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

11.60

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	IT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	o surface, op	otion 2 will b	e utilized		
Option 2 LEAD	2,240'	65/35 Poz + 6% Gel + 10 pps gilsonite	210	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,476'	Premium Lite II +0.25 pps	340	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	6,770'	50/50 Poz/G + 10% salt + 2% gel	1,600	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel		
DRILLING SUPERINTENDENT:		DATE:	

Kenny Gathings / Lovel Young

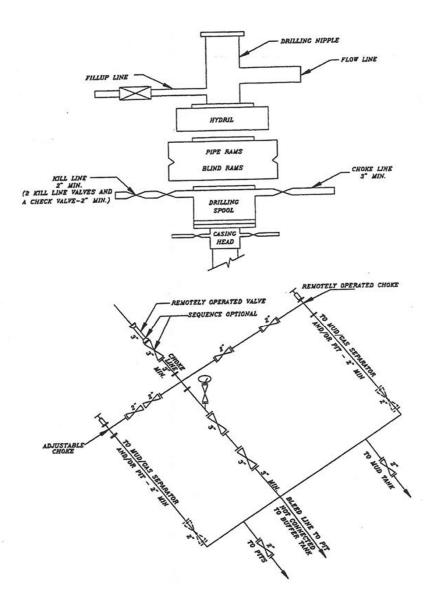
^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

NBU 921-21A PAD

EXHIBIT A

Drilling Program
7 of 7

EXHIBIT A NBU 921-21A3AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

			Tonu o
	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
	RY NOTICES AND REPORTS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	sals to drill new wells, significantly deepen ıgged wells, or to drill horizontal laterals. U		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-21A3AS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047506100000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHO treet, Suite 600, Denver, CO, 80217 3779	NE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 21	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S	5	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	☐ ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
Approximate date work will start.	☐ CHANGE WELL STATUS	\square commingle producing formations	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 11/18/2011	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
11, 10, 2011	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
,,,,,,,,	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
13 DESCRIPE PROPOSED OF CO			
MIRU PETE MARTIN	MPLETED OPERATIONS. Clearly show all per BUCKET RIG. DRILLED 20" C DULE 10 PIPE. CMT W/28 SX 11/18/2011 AT 0730 HR	ONDUCTOR HOLE TO 40'. READY MIX. SPUD WELL O S. A U Oil	•
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE Pogulatory Analyst	
Sheila Wopsock	435 781-7024	Regulatory Analyst	
SIGNATURE N/A		DATE 11/21/2011	

BLM - Vernal Field Office - Notification Form

Submitted By SHEILA WOPSOC! Phone Number 43	
Well Name/Number NBU 921-21A3AS	
Qtr/Qtr NE/NE Section 21 Township 98	Range 21E
Lease Serial Number <u>UTU-0576</u>	
API Number 4304750610	
<u>Spud Notice</u> – Spud is the initial spudding of the wout below a casing string.	vell, not drilling
Date/Time <u>11/17/2011</u> 1400 HRS AM ✓	PM 🗌
Casing – Please report time casing run starts, not times. ✓ Surface Casing Intermediate Casing Production Casing Liner Other	cementing
Date/Time <u>12/14/2011</u> <u>0800 HRS</u> AM √	PM 🗌
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other	RECEIVED NOV 1 & 2011 DIV. OF OIL, GAS & MINING
Date/Time AM] PM [
Remarks ESTIMATED DATE AND TIME. PLEASE COI LOVEL YOUNG AT 435.781.7051 FOR MOR	NTACT

STATE OF UTAH **DEPARTMENT OF NATURAL RESOURCES** DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM									
Operator:	KERR McGEE OIL & GAS ONSHORE LP	Operator Account Number:	N 2995						
Address:	1368 SOUTH 1200 EAST	· · · · · · · · · · · · · · · · · · ·							
	city VERNAL								
	state UT zip 84078	Phone Number:	(435) 781-7024						

4304750610	ND11004044040							
	NBU 921-21A3AS	21-21A3AS		NE 21 9S		21E UINTAH Entity Assignment Effective Date		
Action Code	Current Entity Number	New Entity Number	Spud Date					
\mathcal{B}	99999	3900	1	1/18/201	11	11,	130/11	

Well 2

API Number	Well	QQ	Sec	Twp	Rng	County		
4304750611	NBU 921-21A3DS	NBU 921-21A3DS			98	21E UINTAH Entity Assignment Effective Date		
Action Code	Current Entity Number	New Entity Number	Spud Date					
\mathcal{B}	99999	2900	1	11/18/2011			11/30/11	
Comments: MIRI SPU	J PETE MARTIN BUCK D WELL ON 11/18/2011	ET RIG. BLKH AT 1200 HRS.	K= MV BH	1RD=	= WS: VENU	mVD		

Well 3

Well Name		QQ Sec Twp			Rng County		
Current Entity New Entity Number Number		Spud Date			Entity Assignment Effective Date		
			WHAT I I I I I I I I I I I I I I I I I I I	· · · · · · · · · · · · · · · · · · ·			
	Current Entity	Current Entity New Entity	Current Entity New Entity S	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date	Current Entity New Entity Spud Date Entit	

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

SHEILA WOPSOCK

Signature

REGULATORY ANALYST

Title

11/21/2011 Date

(5/2000)

RECEIVED NOV 2 1 2011

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-21A3AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047506100000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NIATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENE Section: 2	HIP, RANGE, MERIDIAN: 11 Township: 09.0S Range: 21.0E Merio	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
1/11/2012	WILDCAT WELL DETERMINATION	OTUED.	OTHER:
		U OTHER	<u>'</u>
MIRU AIR RIG ON JA SURFACE CASING	COMPLETED OPERATIONS. Clearly show AN. 9, 2012. DRILLED SURFA AND CEMENTED. WELL IS WA NT JOB WILL BE INCLUDED W REPORT.	CE HOLE TO 2756'. RAN AITING ON ROTARY RIG.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 12, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUME 720 929-6304	BER TITLE Regulartory Analyst	
SIGNATURE N/A		DATE 1/12/2012	

Carol Daniels - BOP TEST ON NBU 921-21A3AS Togs Rale S-XI 4304750610

From: "Anadark

"Anadarko - H&P 298" <hp298@gesmail.net>

To:

<caroldaniels@utah.gov>

Date:

2/25/2012 8:34 AM

Subject: BOP TEST ON NBU 921-21A3AS

CAROL,

WILL BE SKIDDING TO THE 3^{RD} WELL ON THIS PAD NBU 921-21A3AS, TONIGHT SAT 2/25/12 ,H&P 298, AND PRESSURE TESTING IN THE AM HRS 2/26/12 2-4 AM THANKS

JIM MURRAY H&P 298 435 828 0957

RECEIVED
FEB 2 5 2012
DIV. OF OIL, GAS & MINING

	STATE OF UTAH		FORM 9					
ι	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576					
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE					
	posals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-21A3AS							
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047506100000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 21 Township: 09.0S Range: 21.0E Meridi	ian: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
3/6/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
to proper property on		Harathara Istalia Istalia						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2,756' TO 11,290' ON MARCH 3, 2012. RAN 4-1/2" 11.6# P-110 PRODUCING CASING. CEMENTED PRODUCTION CASING. RELEASED H&P 298 RIG ON MARCH 6, 2012 @ 16:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 14, 2012								
NAME (DI FASE DDINT)	DHONE NUMB	ER TITLE						
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMB! 720 929-6304	Regulartory Analyst						
SIGNATURE N/A		DATE 3/8/2012						

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
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QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 11 Township: 09.0S Range: 21.0E Merio	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE PLUG AND ABANDO	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
5/11/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
THE SUBJECT WELL 12:00 HOURS.	COMPLETED OPERATIONS. Clearly show. WAS PLACED ON PRODUCT THE CHRONOLOGICAL WELL ED WITH THE WELL COMPLET	TION ON MAY 11, 2012 AT L HISTORY WILL BE	
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUME		
SIGNATURE	720 929-6304	Regulartory Analyst DATE	
N/A		5/14/2012	

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

WELL	COMPLETION	OR RECOMPL	ETION R	EPORT AND	LOG

WELL COMPLETION OR RECOMPLETION REPORT AND LOG										ase Serial N TU0576	No.			
la. Type of	Well	Oil Well	☑ Gas ¹	Well 🗆	Dry (Other					6. If	Indian, Allo	ttee or	Tribe Name
b. Type of	Completion		ew Well	☐ Work C	ver [] Deepen	🗖 Plu	g Back	Diff. R	lesvr.	7 Ib	nit or CA A	areeme	nt Name and No
Other 7. Unit or CA Agreement Name and No. UTU63047A											at Taine and 110:			
2. Name of Operator Contact: CARA MAHLER 8. Lease Name and Well No. KERR MCGEE OIL & GAS ONSHORE-IMail: cara.mahler@anadarko.com NBU 921-21A3AS											l No.			
3. Address 1099 18TH STREET, SUITE 1800 3a. Phone No. (include area code) Ph: 720-929-6029 9. API Well No. 43-047-5061											43-047-50610			
4. Location of Well (Report location clearly and in accordance with Federal requirements)* 10. Field and Pool, or Exploratory NATURAL BUTTES											xploratory S			
At surface NENE 1017FNL 833FEL 40.026062 N Lat, 109.550279 W Lon 11. Sec., T., R., M., or Block and Survey											Block and Survey			
At top prod interval reported delow NENE 652FNL 645FEL 12. County or Parish 13. State												13. State		
14. Date Sp		AL OVOL		ate T.D. Re		7 110		e Complete	d			INTAH Elevations (1	DE KB	PT GL)*
11/18/2	011			/03/2012			□ D &	A 3 1/2012	Ready to P	rod.	27. 2		9 GL	, K1, O <i>D)</i>
18. Total D	epth:	MD TVD	11290 11287		. Plug Ba	ck T.D.:	MD TVD		265 262	20. Dep	th Brid	dge Plug Se		AD VD
21. Type El BHV-SI	ectric & Oth D/DSN/ACT	er Mechar R-CBL/G	nical Logs R R/COLLAR	un (Submit S	copy of ea	ach)			22. Was Was	well cored DST run? tional Sur	?	⊠ No ⊠ No	Yes	(Submit analysis) (Submit analysis)
23. Casing an	d Liner Reco	ord (Reno	rt all strings	set in well)					Direc	tional Sur	vey?	□ No	Yes Yes	(Submit analysis)
Hole Size	Size/G	1	Wt. (#/ft.)	Top (MD)	Botto (MI	1 ~	Cementer Depth	1	Sks. &	Slurry (BBI		Cement T	op*	Amount Pulled
20.000	14.0	000 STL	36.7		0 (1411	40	Бериг	Type of	28		-)			
11.000		25 IJ-55	28.0	 		734			660				0	***************************************
7.875	4.50	0 P-110	11.6		0 11	309			2170		1590		1590	
	<u> </u>			<u> </u>				 						
				ļ				<u></u>		 				
24. Tubing	Record													
	Depth Set (M		acker Depth	(MD)	Size	Depth Set (MD) 1	Packer Dep	th (MD)	Size	De	pth Set (MI)) I	Packer Depth (MD)
2.375 25. Producir		808				26 Perfo	ration Rec	ord		<u> </u>	<u> </u>			
	rmation		Тор	T	ottom		Perforated		<u> </u>	Size	l N	lo. Holes	· · · · ·	Perf. Status
A)	MESAVE	RDE		0743	11138			10743 TO	11138	0.36	_		OPEN	
B)											_			
C)									<u> </u> -					
	acture, Treat	ment, Cen	nent Squeeze	e, Etc.		l								
)	Depth Interva	d					A	mount and	Type of N	laterial				
	1074	3 TO 11	138 PUMP 7	,897 BBLS	SLICK H2	O & 183,59	8 LBS 30/5	50 OTTAWA	A SAND			 		
				· · · · · · ·			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
	-			· · · · · · · · · · · · · · · · · · ·										
28. Producti	on - Interval	A												
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil G Corr.	Fravity . API	Gas Gravit		Producti	ion Method		
05/11/2012	05/12/2012	24		0.0	1938.0							FLOV	VS FRO	M WELL
Choke Size	Tbg. Press. Flwg. 1015	1	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:0		Well S					
20/64	SI Interve	1651.0		0	1938	96	0			PGW			<i></i>	3 P. O. Fr.
Date First	tion - Interva	Hours	Test	Oil	Gas	Water	loii c	Gravity	Gas		Product	ion Method	F	KECEIVED-
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr.		Gravit			-	JL	11 0 2 222
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas	Water	Gas:		Well S	status			<u>J</u> (<u> </u>
Size	Flwg. SI	Press.	Rate	BBL	MCF	BBL	Ratio	·····					DIV. OF	OIL, GAS & MINING

28b. Proc	duction - Interv	al C										
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method	 	· · · · · · · · · · · · · · · · · · ·
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	Grav	vity			
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	Gas	Water	Gas:Oil	Wel	l Status	<u> </u>		
Size	Flwg. SI	Press.	Rate	BBL	MCF	BBL	Ratio	1				
28c Prod	luction - Interv	al D		<u> </u>	I				······································			
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method		
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	Grav				
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Wel	Well Status			
29. Dispo	osition of Gas(D	Sold, used j	for fuel, vent	ed, etc.)	4		<u></u>	· · · · · ·				
30. Sumr	mary of Porous	Zones (Inc	clude Aquife	rs):	··			······································	31. For	mation (Log) Mar	rkers	·····
tests,	v all important including dep ecoveries.	zones of po th interval t	prosity and contested, cushic	ontents there on used, tim	eof: Cored e tool open	intervals and , flowing and	l all drill-stem I shut-in pressu	ures				
	Formation		Тор	Bottom		Descripti	ons, Contents,	ents, etc. Name			Top Meas. Depth	
				-					GE	EEN RIVER		1723
				1					BIF	RD'S NEST		2019
										NHOGANY NSATCH		2350 5039
		ľ							ME	SAVERDE		8237
		1]							
												1
				}								
				1								
				1					1			
									1			
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				į	l							
				ļ								
32. Addi	tional remarks	(include pl	ugging proc	edure):								
The surfa LTC	first 210? of t	he surface drilled with from 5124	hole was on an 11? bit to 11,309	drilled with . P-110 DC	X csa wa	s run from s	surface to 512	4?;				
33, Circl	le enclosed atta	chments:										
	lectrical/Mech		(1 full set re	ea'd.)		2. Geologi	c Report	3	3. DST Re	port	4. Direction	nal Survev
	undry Notice f	-	•			6. Core Ar	•		7 Other:	Poli		
						 						
34. I her	eby certify tha	the forego	_	ronic Subm	ission #14	1955 Verifie	d by the BLM	Well Infor	mation Sy		ched instruction	ons):
				For KERR	MCGEE	OIL & GAS	SONSHORE	L, sent to t	ne Vernal			
Nam	e (please print	CARA M	AHLER				Title	AUTHOR	IZED REI	PRESENTATIVE	<u> </u>	
Signature (Electronic Submission)								Date 06/29/2012				
DIEN			+	10117			Dau	00/23/20				
Digit				10117			Dau	00/20/20	-			

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-21A3AS YELLOW Spud Date: 1/9/2012 Project: UTAH-UINTAH Site: NBU 921-21A PAD Rig Name No: PROPETRO 11/11, H&P 298/298 Event: DRILLING End Date: 3/6/2012 Start Date: 11/10/2011

Active Datum: RKB @4.855.00usft (above Mean Sea

UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0

Active Datum: RI Level)	KB @4,8	55.00usft (a	bove Mean S	ea	UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0						
Date	and the second	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)			
1/9/2012	11:00	- 14:00	3.00	MIRU	01	В	P	SKID RIG 10' TO NBU 921-21A3AS (WELL3 OF 4). INSTALL DIVERTOR HEAD AND BLUEY LINE. BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. HELD PRE-SPUD SAFETY MEETING. SPUD 14:00			
	14:00	- 15:30	1.50	DRLSUR	02	D	Р	DRILL 12.25" HOLE 44'- 210'. (166', 83'/HR) RPM=45, WOB 5-15K. PSI ON/OFF 600/400. UP/DOWN/ ROT 20/20/20 K. DRAG 0 K. CIRC RESERVE W. 8.3# WATER. DRILL DOWN TO 210' W/ 6" COLLARS.			
	15:30	- 17:30	2.00	DRLSUR	06	Α	Р	POOH, PU, 11" BIT AND DIRECTIONAL TOOLS, TIH T/			
	17:30	- 0:00	6.50	DRLSUR	02	D	Р	DRILL F/210 T/1090 (880' @ 135' PER HR) WOB 20K, PSI ON/OFF 1240/1040, RPM 45 UP/DWN/ROT 60/50/55			
1/10/2012	0:00	- 12:00	12.00	DRLSUR	02	D	Р	DRILL F/1090-2290' (1200' @ 100" PER HR) WOB 20K, PSI ON/OFF 1500/1300, RPM 45 UP/DWN/ROT 82/62/72			
		- 19:30	7.50	DRLSUR	02	D	P	DRILL F/2290-2756' (466' @ 62' PER HR) WOB 20K, PSI ON/OFF 1880/1680, RPM 45 UP/DWN/ROT 92/67/80 TD @ 19:30			
		- 21:30	2.00	DRLSUR	05	D	Р	CIRC F/CSNG			
İ		- 0:00	2.50	DRLSUR	06	D	Р	LDDS			
1/11/2012	0:00	- 1:30	1.50	DRLSUR	06	D	Р	LD DIR TOOLS & BIT			
	1:30	- 2:30	1.00	DRLSUR	12	Α	Р	MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. AND MOVE CSG INTO POSITION TO P/U.			
	2:30	- 6:00	3.50	DRLSUR	12	С	P	RUN 61 JTS 8 5/8, 28# CSNG. SHOE SET @ 2712", BAFFLE SET @ 2666.17"			
	6:00	- 7:00	1.00	DRLSUR	12	В	Р	HOLD SAFETY MEETING, RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES,. CEMENT HEAD, LOAD PLUG. LAND CSNG @ 06:00			
	7:00 8:30	- 8:30	1.50	DRLSUR	12	E	Р	PRESSURE TEST LINES TO 2000 PSI. PUMP 150 BBLS OF WATER AHEAD. PUMP 20 BBLS OF 8.3# GEL WATER AHEAD. PUMP (220 SX) 149.6 BBLS OF 11.0# 3.82 YD 23 GAL/SK PREMIUM CEMENT. PUMP 165 SX TAIL (33.8 BBLS),15.8#, 1.15 YIELD. DROP PLUG ON FLY. DISLPACE WITH 166.4 BBLS OF H20. FULL CIRC THROUGHOUT. FINAL LIFT 350 PSI AT 4 BBLS MIN. BUMP PLUG WITH 1000 PSI HELD FOR 5 MIN. FLOAT HELD. PUMP 150 SX (30.72 BBLS) OF SAME TAIL CEMENT WITH 2% CACL DOWN 1". SHUT DOWN AND CLEAN TRUCK.			
	10:00	- 10:00 - 11:00	1.50	DRLSUR	13 12	A E	P P	MOC			
	10.00	- 11:00	1.00	DRLSUR	12	<u> </u>	г	PUMP 125 SKS (25.6BBLS) DOWN BACKSIDE. CMT TO SURFACE. STAYED RELEASE RIG 11:00			

6/25/2012 10:38:31AM

US ROCKIES REGION

Operation Summary Report

 Well: NBU 921-21A3AS YELLOW
 Spud Date: 1/9/2012

 Project: UTAH-UINTAH
 Site: NBU 921-21A PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 11/10/2011
 End Date: 3/6/2012

Active Datum: RKB @4,855.00usft (above Mean Sea

UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0

Active Datum: RKB @4,855.00usπ (above Mean Sea Level)					OWI. NENEDISISIZITEZ (1010/20/PMIN/1017/E/0/033/0/0						
Date		Time	Duration	Phase	Code	Sub	P/U	MD From Operation			
		tart-End	(hr)			Code		(usft)			
2/26/2012	0:00	- 5:00	5.00	MIRU	01	С	Р	SKID RIG 10', JUMP SKID REAMS, SKID 10', ALIGN			
								OVER WELL			
	5:00	- 8:30	3.50	PRPSPD	14	Α	Р	NIPPLE UP BOPE, FLOWLINE, ADD EXTENTIONS TO			
	0.20	40.00	4.50	DDDDDD	4.5			CHOKE LINE, MUD LINE			
	8:30	- 13:00	4.50	PRPSPD	15	Α	P	PRESSURE TEST PIPE RAMS, BLIND RAMS, IBOP,			
								FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES , HCR VALVE + CHOKE LINE;			
								INNER AND OUTER CHOKE VALVES & MANIFOLD			
								TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @			
								10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5			
								MINUTES + 2500 PSI HIGH @ 10 MINUTES/ TEST			
	12:00	44.00	4 50	22222	4.5		_	SUPER CHOKE + SURFACE CASING TO 1500			
		- 14:30	1.50	PRPSPD	15	Α .	P	TEST STRATA EQUIP 250 PSI LOW-3000 PSI HIGH			
		- 15:00	0.50	PRPSPD	07	A	P	RIG SERVICE			
		- 16:00	1.00	PRPSPD	07	С	P	CHANGE OUT SAVER SUB			
		- 16:30	0.50	PRPSPD	14	В	P	INSTALL WEAR BUSHING			
	16:30	- 19:00	2.50	PRPSPD	06	Α	Р	PICK UP MUD MTR ,MAKE UP BIT,INSTALL			
								DIRECTIONAL TOOLS,& SURFACE TEST,TIH TAG			
	19:00	- 19:30	0.50	DRLPRO	07	В	Р	CEMENT@2,630' LEVEL DERRICK,INSTALL ROT HEAD			
		- 21:00	1.50	DRLPRO	02	F	P	DRILL FLOAT TRACK FROM 2,630 TO 2,734			
		21.00	1.00	DIVELLING	0 2		•	BAFFLE @ 2,688 SHOE @ 2,734 OPEN 2,788			
	21:00	- 0:00	3,00	DRLPRO	02	D	Р	SPUD 7-7/8 PROD HOLE, DRILL / SLIDE / SURVEY F/			
								2,788 TO 3,250 = 472 ' @ FPH			
								WOB 20,000-24,000			
								TOP DRIVE RPM 40-65			
								MUD MOTOR RPM 88			
								PUMPS 120 SPM=550 GPM			
								PUMP PRESSURE ON/OFF BTM 1,950/ 1,760 TORQUE ON/OFF BTM 7,000/ 4,000			
								PICK UP WT 120,000			
								SLACK OFF WT 90,,000			
								ROT WT 102,000			
								SLIDE 18' IN 15 MIN 3.8% OF FOOTAGE DRILLED,			
								8.3% OF HRS DRILLED			
2/27/2012	0:00	- 6:00	6.00	DRLPRO	02	В	Р	MUD WT 8.4 VIS 27 DRILL / SLIDE / SURVEY F/ 3,250' TO 3,950' = 116.6			
2/2//2012	0.00	0.00	0.00	DIVELLING	02			'@ FPH			
								WOB 20,000-24,000			
								TOP DRIVE RPM 40-65			
								MUD MOTOR RPM 88			
								PUMPS 120 SPM=550 GPM			
								PUMP PRESSURE ON/OFF BTM 1,980/ 1,760			
								TORQUE ON/OFF BTM 9,000/ 6,000 PICK UP WT 135,000			
								SLACK OFF WT 100,,000			
								ROT WT 114,000			
								SLIDE 18' IN 15 MIN 2.5% OF FOOTAGE DRILLED,			
								16.4% OF HRS DRILLED			
								MUD WT 8.4 VIS 27			

6/25/2012 10:38:31AM

2

	- Part - 18			U	S ROC	KIES RI	GION
				Opera	ition S	umma	ry Report
Well: NBU 921-2	1A3AS YELLOW					- 45 (Spud Date: 1/9/2012
Project: UTAH-U		Site: NBL	J 921-21 <i>A</i>	PAD		Rig Name No: PROPETRO 11/11, H&P 298/298	
Event: DRILLING		Start Date	e: 11/10/2	2011	T	End Date: 3/6/2012	
Active Datum: RI				S/21/E/21	/0/0/26/PM/N/1017/E/0/833/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/Ü	MD From Operation (usft)
	15:30 - 16:00 16:00 - 20:00	9.50	DRLPRO	07	В	P	DRILL / SLIDE / SURVEY F/ 3,950' TO 5,080' = 1130' @ 119' FPH WOB 20,000-24,000 TOP DRIVE RPM 40-65 MUD MOTOR RPM 88 PUMPS 124 SPM=558 GPM PUMP PRESSURE ON/OFF BTM 2,063/ 1,670 TORQUE ON/OFF BTM 8,000 / 6,000 PICK UP WT 148,000 SLACK OFF WT 111,,000 ROT WT 132,000 SLIDE 40' IN 25 MIN 3.7% OF FOOTAGE DRILLED, 4.3% OF HRS DRILLED MUD WT 8.4 VIS 27 TIGHT SPOT @ 4,870 LUBE RIG
2/28/2042	0:00 - 0:00	8.00	DRLPRO	02	В	P	DRILL / SLIDE / SURVEY F/ 5,080 TO 6,100 = 1,020' @ 127.5' FPH WOB 20,000-24,000 TOP DRIVE RPM 40-65 MUD MOTOR RPM 88 PUMPS 12 SPM=550 GPM PUMP PRESSURE ON/OFF BTM 1,860/ 1,690 TORQUE ON/OFF BTM 11,000 / 9,000 PICK UP WT 170,000 SLACK OFF WT 115,,000 ROT WT 148,000 SLIDE 45' IN 50 MIN 4.39% OF FOOTAGE DRILLED, 10.41% OF HRS DRILLED MUD WT 8.4 VIS 27
2/28/2012	0:00 - 6:00	6.00	DRLPRO	02	В	P	DRILL / SLIDE / SURVEY F/ 5,100 TO 6,800= 700' @ 117' FPH WOB 20,000-24,000 TOP DRIVE RPM 40-65 MUD MOTOR RPM 88 PUMPS 120 SPM=550 GPM PUMP PRESSURE ON/OFF BTM 1,860/ 1,690 TORQUE ON/OFF BTM 11,000 / 9,000 PICK UP WT 170,000 SLACK OFF WT 115,000

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6/25/2012

ROT WT 148,000

10.41% OF HRS DRILLED MUD WT 8.4 VIS 27

SLIDE 45' IN 50 MIN 4.39% OF FOOTAGE DRILLED,

3

Operation Summary Report

Well: NBU 921-21A3AS YELLOW	\$	Spud Date: 1/9/2012			
Project: UTAH-UINTAH	Site: NBU 921-21A PAD	Rig Name No: PROPETRO 11/11, H&P 298/298			
Event: DRILLING	Start Date: 11/10/2011	End Date: 3/6/2012			
Active Datum: RKB @4,855,00usft (above Level)	e Mean Sea UWI: NE/NE/0/9/S/21/E/21/0/	UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0			

evel)			·,		<u> </u>				
Date		Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
	The state of the state of the	art-End	(hr)	DD: DDA	1 20	Code		(usft)	<u> </u>
	0.00	- 13:30	7.50	DRLPRO	02	В	Р		DRILL / SLIDE / SURVEY F/ 5,800 TO 7,442= 642' @
									85.6' FPH
									WOB 20,000-24,000
									TOP DRIVE RPM 40-65
									MUD MOTOR RPM 88 PUMPS 120 SPM=550 GPM
									PUMP PRESSURE ON/OFF BTM 2,005/ 1,750
									TORQUE ON/OFF BTM 11,000 / 9,000
									PICK UP WT 202,000
									SLACK OFF WT 151,000
									ROT WT 173,000
									SLIDE 20' IN 30 MIN.3% OF FOOTAGE DRILLED,6.6%
									OF HRS DRILLED
									MUD WT 8.5 VIS 27
	13:30	- 14:00	0.50	DRLPRO	07	Α	P		RIG SERVICE
		- 14:30	0.50	DRLPRO	14	В	Р		CHANGE ROTATING RUBBER
		- 0:00	9.50	DRLPRO	02	В	P		DRILL / SLIDE / SURVEY F/7,442 TO 8,035= 593' @
									62.4' FPH
									WOB 20,000-25,000
									TOP DRIVE RPM 40-65
									MUD MOTOR RPM 83
									PUMPS 114 SPM=513 GPM
									PUMP PRESSURE ON/OFF BTM 2,000/ 1,850
									TORQUE ON/OFF BTM 14,000 / 12,000
									PICK UP WT 225,000
									SLACK OFF WT 150,000
									ROT WT 177,000
									SLIDE 55' IN 90 MIN. 9.29% OF FOOTAGE
									DRILLED,16,07% OF HRS DRILLED
									MUD WT 8.8 VIS 34
2/29/2012	0:00	- 6:00	6.00	DRLPRO	02	D	Ρ.		DRILL / SLIDE / SURVEY F/ 8,035' TO 8,343' = 308'
									@ 51.3' FPH
									WOB 20,000-25,000
									TOP DRIVE RPM 40-65
									MUD MOTOR RPM 83
									PUMPS 114 SPM=513 GPM
									PUMP PRESSURE ON/OFF BTM 2,000/ 1,850
									TORQUE ON/OFF BTM 12,000 / 11,000
									PICK UP WT 220,000
									SLACK OFF WT 155,000
									ROT WT 184,000
									SLIDE 45' IN 100 MIN 17.44% OF FOOTAGE
									DRILLED, 27.77% OF HRS DRILLED
									MUD WT 8.8 VIS 34

6/25/2012 10:38:31AM

ell: NBU 921-2	21A3AS YELLOW						Spud Date: 1/9/2012	2012	
oject: UTAH-L	JINTAH		Site: NBU	921-21A	PAD		Rig Name No. Pl	ROPETRO 11/11, H&P 298/298	
Event: DRILLING Start Date				e: 11/10/2011			End Date: 3/6/20	12	
Active Datum: RKB @4,855.00usft (above Mean Sea Level)					E/NE/0/9/	S/21/E/21	0/26/PM/N/1017/E/0/833/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
	6:00 - 16:30 16:30 - 17:00 17:00 - 18:00 18:00 - 23:00	0.50 1.00 5.00	DRLPRO DRLPRO DRLPRO DRLPRO	07 22 02	A O D	P P Z P	DRILL / SLIDE / SU @ 49.4' FPH WOB 20,000-25,00 TOP DRIVE RPM 4 MUD MOTOR RPM PUMPS 112 SPM 11	#0-65 # 83 = 504 GPM E ON/OFF BTM 2,250/ 1,976 BTM 13,000 / 12,000 000 63,000 8.80% OF FOOTAGE DRILLED, LLED 166 @ 8,425' WITH A 15' FLARE FULL 3,847' IME AND REPLACE TOTCO FLOW T JRVEY F/ 8,847' TO 9,142' = 295' 00 55-70 # 83 = 504 GPM E ON/OFF BTM 2,200/ 1,950 BTM 14,000 / 12,000	
							CHOKE / 20 PSI C NO SLIDES 0' IN 0 MIN 0% OF DRILLED	FOOTAGE DRILLED, 0% OF HRS	
	23:00 - 0:00	1.00	DRLPRO	08	В	Z	MUD WT 9.2 VIS 4 WAITING ON ELE TOP DRIVE BLOV	CTRICIAN TO TROUBLE SHOOT	
3/1/2012	0:00 - 2:30	2.50	DRLPRO	80	В	Z	TOP DRIVE BLOV	VER MOTOR PLUG PULLED APAR	

6/25/2012 10:38:31AM

5

Operation Summary Report

Well: NBU 921-21A3AS YELLOW		Spud Date: 1/9/2012
Project: UTAH-UINTAH	Site: NBU 921-21A PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	Start Date: 11/10/2011	End Date: 3/6/2012
Active Datum: RKB @4,855,00usft (abo Level)	ove Mean Sea UWI: NE/NE/0/9/S/21/E/21/0/	/0/26/PM/N/1017/E/0/833/0/0

Active Datum: Rh Level)	(B @4,8	355,00usft (ab	ove Mean S	ea	UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0					
Date	s	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)		
	2:30	- 6:00	3,50	DRLPRO	02	D	P	DRILL / SLIDE / SURVEY F/ 9,142' TO 9.323' = 181' @ 51.7' FPH WOB 20,000-25,000 TOP DRIVE RPM 40-55 MUD MOTOR RPM 83 PUMPS 112 SPM = 504 GPM PUMP PRESSURE ON/OFF BTM 2,450/ 2,270		
								TORQUE ON/OFF BTM 14,000 / 13,000 PICK UP WT 245,000 SLACK OFF WT 165,000 ROT WT 200,000 STRATA ONLINE WITH A 15' FLARE /FULL OPEN CHOKE / 90 PSI ON ANNULAS		
								NO SLIDES MUD WT 9.2 VIS 35 35 BBL MUD LOSS		
	6:00	- 14:00	8.00	DRLPRO	02	D	P	DRILL / SLIDE / SURVEY F/ 9,323' TO 9,709' = 386' @ 48.25' FPH WOB 20,000-25,000		
								TOP DRIVE RPM 45-55 MUD MOTOR RPM 75 PUMPS 112 SPM = 468 GPM PUMP PRESSURE ON/OFF BTM 2,211/ 1,909 TORQUE ON/OFF BTM 13,000 / 14,000		
								PICK UP WT 248,000 SLACK OFF WT 172,000 ROT WT 206,000 STRATA ONLINE WITH A 5' FLARE /FULL OPEN CHOKE / 90 PSI ON ANNULAS NO SLIDES		
	14:00	- 14:30	0.50	DRLPRO	07	Α	P	MUD WT 9.2 VIS 39 40 BBL MUD LOSS LUBE RIG @ 9,709'		
		- 0:00	9.50	DRLPRO	02	D	P	DRILL / SLIDE / SURVEY F/ 9,709' TO 10,120' = 411' @43.2' FPH WOB 20,000-27,000 TOP DRIVE RPM 45-70 MUD MOTOR RPM 81 PUMPS 112 SPM = 504 GPM		
								PUMP PRESSURE ON/OFF BTM 2,500/ 2,200 TORQUE ON/OFF BTM 16,000 / 15,000 PICK UP WT 250,000 SLACK OFF WT 175,000		
								ROT WT 214,000 STRATA ONLINE WITH A 15'-30' FLARE /FULL OPEN CHOKE / 125 PSI ON ANNULAS NO SLIDES MUD WT 9.0 VIS 38		
								50 BBL MUD LOSS		

6/25/2012 10:38:31AM

6

							KIES REG ummary			
Well: NBU 921-:	21A3AS V	ŒLLOW			•			pud Date: 1/9/2012		
Project: UTAH-I		LLLOW		Site: NRI	J 921-21A	PAD		Rig Name No: PROPETRO 11/11, H&P 298/298		
Event: DRILLING Start Da							T			
					1		D/04/F/04/0/6	End Date: 3/6/2012		
ctive Datum: F evel)	KB @4,8	55,00usft (a	ibove Mean Se	ea	UVVI: NE	UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0				
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)		
3/2/2012		- 6:00 - 15:30	9,50	DRLPRO	02	D	P	DRILL / SURVEY F/ 10,120' TO 10,345' = 225' @ 37.5' FPH WOB 20,000-27,000 TOP DRIVE RPM 45-55 MUD MOTOR RPM 72 PUMPS 100 SPM = 450 GPM PUMP PRESSURE ON/OFF BTM 2,000/ 1,850 TORQUE ON/OFF BTM 15,000 / 14,000 PICK UP WT 260,000 SLACK OFF WT 180,000 ROT WT 214,000 STRATA ONLINE WITH A 15'-25' FLARE FULL OPEN CHOKE / 140 PSI ON ANNULAS NO SLIDES MUD WT 9.0 VIS 38 NO MUD LOSS DRILL / SURVEY F/ 10,345' TO 10,530' = 184' @		
		- 17:30	2.00	DRLPRO	22	N	x	19.4' FPH WOB 24,000-30,000 TOP DRIVE RPM 40-55 MUD MOTOR RPM 72 PUMPS 100 SPM = 450 GPM PUMP PRESSURE 0N/OFF BTM 2,077/ 1,902 TORQUE ON/OFF BTM 13,000 / 15,000 PICK UP WT 273,000 SLACK OFF WT 179,000 ROT WT 220,000 STRATA ONLINE WITH A 15'-25' FLARE FULL OPEN CHOKE / 140 PSI ON ANNULAS NO SLIDES MUD WT 9.0 VIS 38 NO MUD LOSS SHUT WELL IN, INITIAL 800 PSI ON ANNULUS THEN		
								DOWN TO 300 PSI, NO PSI ON DRILL PIPE, CIRCULATE OUT GAS USING RIG EQUIPMENT, STRATA OFFLINE,		
	17:30	- 18:00	0.50	DRLPRO	02	D	P	DRILL / SURVEY F/ 10,530' TO 10,545' = 15' @ 35' FPH		

6/25/2012 10:38:31AM

WOB 24,000-30,000 TOP DRIVE RPM 35-45 MUD MOTOR RPM 72 PUMPS 100 SPM = 450 GPM

PICK UP WT 273,000 SLACK OFF WT 179,000 ROT WT 220,000

NO SLIDES MUD WT 10.1 VIS 40 NO MUD LOSS

CHOKE / 90 PSI ON ANNULAS

PUMP PRESSURE ON/OFF BTM 2,246/ 2,068 TORQUE ON/OFF BTM 13,000 / 15,000

STRATA ONLINE WITH A 10' FLARE FULL OPEN

Operation Summary Report

 Well: NBU 921-21A3AS YELLOW
 Spud Date: 1/9/2012

 Project: UTAH-UINTAH
 Site: NBU 921-21A PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 11/10/2011
 End Date: 3/6/2012

Active Datum: F	RKB @4,8	55.00usft (a	above Mean S	Sea	· · · · · · · · · · · · · · · · · · ·		S/21/E/2	1/0/0/26/PM/N/1017/E/0/833/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
		- 0:00	6.00	DRLPRO	02	D	P	DRILL / SURVEY F/ 10,530' TO 10,682' = 152' @ 25.3' FPH WOB 24,000-30,000 TOP DRIVE RPM 35-45 MUD MOTOR RPM 72 PUMPS 100 SPM = 450 GPM PUMP PRESSURE ON/OFF BTM 2,350/ 2,200 TORQUE ON/OFF BTM 16,000 / 15,000 PICK UP WT 260,000 SLACK OFF WT 180,000 ROT WT 218,000 STRATA ONLINE WITH A 10' FLARE FULL OPEN CHOKE / 90 PSI ON ANNULAS NO SLIDES MUD WT 10.1 VIS 40 NO MUD LOSS
3/3/2012	0:00	- 6:00	6.00	DRLPRO	02	D	P	DRILL / SURVEY F / 10,682' TO 10,851' =169' @ 28.16 FPH WOB 24,000-30,000 TOP DRIVE RPM 35-45 MUD MOTOR RPM 72 PUMPS 100 SPM = 450 GPM PUMP PRESSURE ON/OFF BTM 2,350/ 2,200 TORQUE ON/OFF BTM 16,000 / 15,000 PICK UP WT 260,000 SLACK OFF WT 180,000 ROT WT 218,000 STRATA ONLINE WITH A 10' FLARE FULL OPEN CHOKE / 120 PSI ON ANNULAS NO SLIDES MUD WT 10.5 VIS 40 NO MUD LOSS
		- 16:30	10.50	DRLPRO	02	D	P	DRILL / SURVEY F/ 10,851' TO 11,220' =369' @ 35.14 FPH WOB 24,000-30,000 TOP DRIVE RPM 35-45 MUD MOTOR RPM 68 PUMPS 95 SPM = 427 GPM PUMP PRESSURE ON/OFF BTM 2400/2050 TORQUE ON/OFF BTM 17,000 / 15,000 PICK UP WT 268,000 SLACK OFF WT 189,000 ROT WT 225,000 STRATA ONLINE WITH A 10' TO 15'FLARE FULL OPEN CHOKE / 120 PSI ON ANNULAS NO SLIDES MUD WT 11.2 VIS 40 25 BBL MUD LOSS
	16:30	- 17:00	0.50	DRLPRO	07	Α	Р	SERVICE RIG @ 11,220'

6/25/2012 10:38:31AM

Operation Summary Report

 Well: NBU 921-21A3AS YELLOW
 Spud Date: 1/9/2012

 Project: UTAH-UINTAH
 Site: NBU 921-21A PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 11/10/2011
 End Date: 3/6/2012

ent: DRILLIN		E 00.06 /a	have Maan C	Start Date			2/21/E/21	End Date: 3/6/2012 /0/0/26/PM/N/1017/E/0/833/0/0
uve Datum: F vel)	KKB @4,85	5.00usit (a	bove Mean S	ea	OVVI. IN	C/NC/0/3/3	5/21/E/21	(UU/20/PW/N/1011/E/U/838/U/U
Date	第二十四十四十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二	ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usrt)
	17:00	V 201	2.00	DRLPRO	02	D	Р	DRILL FROM 11,220' TO 11,290' TD =70' @ 35 FPH WOB 24,000-30,000
								TOP DRIVE RPM 35-45
								MUD MOTOR RPM 68
								PUMPS 95 SPM = 427 GPM
								PUMP PRESSURE ON/OFF BTM 2400/2050
								TORQUE ON/OFF BTM 17,000 / 15,000
								PICK UP WT 268,000
								SLACK OFF WT 190,000
								ROT WT 230,000
								STRATA OFF LINE
								MUD WT 11.5 VIS 40
	40.00					_	_	NO MUD LOSS
	19:00		1.00	DRLPRO	05	С	Р	CIRC BOTTOMS UP @ 11,290' TD
	20:00	- 0:00	4.00	DRLPRO	06	E	P	WIPER TRIP / TOOH FROM 11,290' TO 5,000' W/ NO PROBLEMS
3/4/2012	0:00	- 1:30	1,50	DRLPRO	06	E	P	TOOH FROM 5,000' TO SHOE @ 2,735' WITH NO PROBLEMS / FLOW CHECK
	1:30	- 2:00	0.50	DRLPRO	14	В	Р	CHANGE OUT STRATA ROTATING HEAD ELEMENT
	2:00	- 2:00	0.00	DRLPRO				
	2:00	- 6:00	4.00	DRLPRO	06	E	P	TIH F/ 2,735' TO 11,290' WASH LAST 4 STANDS WITH NO PROBLEMS/ NO FILL ON BOTTOM
	6:00	- 9:30	3.50	DRLPRO	05	С	Р	CIRULATE & COND MUD @ 11,290' / PUMP AND SPOT 100 BBL 12.5 PPG PILL / 10 TO 20' FLARE ON
	9:30	- 16:00	6.50	DRLPRO	06	Α	Р	BOTTOMS UP TOOH FOR LOGS WITH NO PROBLEMS / FLOW CHECK @ SHOE
	16:00	- 16:30	0.50	DRLPRO	07	Α	Р	SERVICE RIG
	16:30	- 22:00	5.50	DRLPRO	11	D	P	PJSM / RU & RUN TRIPPLE COMBO LOGS WITH HALLIBURTON TO 10,197' LOGS STOOD UP/ UNABLE TO WORK PAST BRIDGE / LOG UP WITH TRIPPLE COMBO FROM 10,187' TO CASING SHOE @ 2,732'
	22:00	- 0:00	2.00	DRLPRO	06	F	X	MAKE UP MILL TOOTH BIT & TIH TO 4,000' FILL EACH 2,000'
3/5/2012	0:00	- 2:30	2.50	DRLPRO	06	F	X	CONTINUE TRIPPING IN HOLE FROM 5,000' TO 10,570' W/ NO PROBLEMS
	2:30	- 5:00	2.50	DRLPRO	03	E	Х	WASH & REAM FROM 10,570' TO 11,290' UNABLE TO RUN IN HOLE HAVE TO WASH & REAM TO BOTTOM
	5:00	- 6:30	1.50	DRLPRO	05	В	X	CIRULATE & CONDITION MUD RAISE MUD WEIGHT FROM 11.9 PPG TO 12.2 PPG / 5' FLARE ON BOTTOM'S UP / PUMP & SPOT 50 BBL 13.0 PPG PILL
	6:30	- 12:00	5.50	DRLPRO	06	Α	х	TOOH FROM 11,290' TO BIT W/ NO PROBLEMS
	12:00	- 14:00	2.00	DRLPRO	11	D	X	SAFETY MEETING / RIG UP HALLIBURTON & RUN TRIPPLE COMBO RUN IN HOLE WITH LOG # 2 TO
								11,296' LOGGERS DEPTH / DRILLERS DEPTH 11,290' W/ NO PROBLEMS
	14:00	- 15:00	1.00	DRLPRO	11	D	Р	LOG UP WITH TRIPPLE COMBO FROM 11,296' TO LOG # 1 TIE IN POINT @ 11,187'
		- 16:00	1.00	DRLPRO	11	D	Р	PULL OUT OF HOLE WITH WIRE LINE LOGS AND RIC DOWN SAME
	16:00	- 16:30	0.50	DRLPRO	14	В	Р	PULL WEAR BUSHING

Operation Summary Report

 Well: NBU 921-21A3AS YELLOW
 Spud Date: 1/9/2012

 Project: UTAH-UINTAH
 Site: NBU 921-21A PAD
 Rig Name No: PROPETRO 11/11, H&P 298/298

 Event: DRILLING
 Start Date: 11/10/2011
 End Date: 3/6/2012

Active Datum: RKB @4,855.00usft (above Mean Sea UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0

Date		îme	Duration	Phase	Code	Sub	P/U	MD From	Operation
	A 100 TO	rt-End	(hr)		1.3	Code	ige.	(usft)	
	16:30	- 18:00	1.50	DRLPRO	12	Α	Р		PRE JOB SAFETY MEETING / RIG UP KIMZEY CASING EQUIPMENT
	18:00	- 0:00	6.00	DRLPRO	12	С	Р		RUN 4 1/2" PRODUCTION CASING TO 5,820' W/ NO PROBLEMS
3/6/2012		- 6:00 - 8:00	6.00	DRLPRO	12	c	P		CONTINUE TO RUN 4 1/2" PRODUCTION CASING FROM 5,820' TO 11,282' FLOAT SHOE @ 11,282' / FLOAT COLLAR @ 11,237' BLACK HAWK MARKER @ 10,683' / MVERDE MARKER @ 7,953' / X-O @ 5,094' TOTAL JTS RAN 263 / 147 JTS OF P-110 LTC & 116 JTS OF P-110 DQX
	0.00	- 8:00	2.00	DRLPRO	05	Α	Р		BREAK AND ESTABLISH CIRCULATION / MEANWHILE RD CASING CREW / HOLD SAFETY MEETING WITH BJ CEMENTERS
	8:00	- 9:00	1.00	DRLPRO	05	Α	Р		CONTINUE TO CIRCULATE MEANWHILE PREPARE A BBL 12.2 PPG SEALBOND SPACER
		- 13:00	4.00	DRLPRO	12	E	P		INSTALL BJ CMT HEAD, TEST PUMP & LINES TO 5,000 PSI, ,DROP BOTTOM PLUG PUMP 5 BBLS FW 40 BBLS SEAL BOND SPACER @12.2PPG PUMP 700 SKS LEAD CEMENT @ 130 PPG,221 BBL SLURRY (PREM LITE II + .0.25 pps CELLO FLAKE + 10 pps KOL SEAL + .05 lb/sx STATIC FREE + 6% bwoc BENTONITE + .4% bwoc SODIUM META SILICATE +3 % R-3 + 84.8% FRESH WATER / (8.85 gal/sx, 1.78 yield) + 1,470 SX TAIL @ 14.3 ppg 342 BBL SLURRY (CLS G 50/50 POZ + 10% SALT + .05 libs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE + 58.7% FW / (5.91 gal/sx, 1.31 yield) / DROP TOP PLUG & DISPLACE W/ 175 BBLS H2O + ADDITIVES / PLUG DOWN @ 11:45 HOURS / FLOATS HELD W/ 2.5 BBLS H2O RETURNED TO INVENTORY/ GOOD CIRC THROUGH OUT 16 BBLS LEAD CMT TO SURFACE / LIFT PRESSURE @3,177 PSI / BUMP PRESSURE TO 3,754 PSI / TOP OF TAIL CEMENT CALCULATED @ 4,500' / RIG DOWN CMT EQUIPMENT
		- 14:30	1.50	DRLPRO	14	Α	Р		FLUSH OUT BOP AND EQUIPMENT / RAISE BOP
		- 15:30	1.00	DRLPRO	14	В	Р		SET SLIPS WITH 105 K / CUT OFF CASING AND LAY DOWN SAME
	15:30	- 16:00	0.50	DRLPRO	14	Α	Р		NIPPLE DOWN BOP & RELEASE RIG @ 16:00 HRS 3/6/12

6/25/2012 10:38:31AM

10

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-21A3AS YELLOW	Wellbore No.	ОН					
Well Name	NBU 921-21A3AS	Wellbore Name	NBU 921-21A3AS					
Report No.	1	Report Date	5/1/2012					
Project	UTAH-UINTAH	Site	NBU 921-21A PAD					
Rig Name/No.		Event	COMPLETION					
Start Date	5/1/2012	End Date	5/11/2012					
Spud Date	1/9/2012	Active Datum	RKB @4,855.00usft (above Mean Sea Level)					
UWI	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0						

1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	DAVE DANIELS
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

1.5 Summary

Fluid Type	KCL WATER	Fluid Density	Gross Interval	10,743.0 (usft)-11,138.0 (u	Start Date/Time	5/1/2012 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	9	End Date/Time	5/1/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	72	Net Perforation Interval	20.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.60 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	State except a SALE		Misfires/ Diamete Carr Typ Add. Shot r (in)	e /Stage No Carr Size (in)	Phasing (°)	Charge Desc /Charge Charge Reason Misrun Manufacturer Weight (gram)
5/1/2012	MESAVERDE/	e de la companya de l		10,743.0	10,744.0	4.00	0,360 EXP/	3.375	90.00	23.00 PRODUCTIO
12:00AM										<u>,</u> N

June 25, 2012 at 10:46 am 1 OpenWeils

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
5/1/2012 12:00AM	MESAVERDE/			10,761.0	10,764.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			10,786.0	10,788.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			10,824.0	10,826.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			10,854.0	10,855.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			10,916.0	10,919.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			10,928.0	10,930.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			11,060.0	11,062.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
5/1/2012 12:00AM	MESAVERDE/			11,134.0	11,138.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



				Opera	ation S	umma	ry Report
Well: NBU 921-2	21A3AS YELLOW				. sandrate a series		Spud Date: 1/9/2012
Project: UTAH-L	JINTAH		Site: NBU	J 921-21/	A PAD		Rig Name No: MILES 3/3
Event: COMPLE	TION		Start Dat	e: 5/1/201	12		End Date: 5/11/2012
Active Datum: R Level)	KB @4,855.00usft (al	bove Mean Se	ea	UWI: N	E/NE/0/9/	S/21/E/21	0/0/26/PM/N/1017/E/0/833/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U :	MD From Operation (usft)
1/9/2012	-						
1/10/2012	-						
1/11/2012	-						
4/24/2012	11:00 - 12:30	1.50	COMP	33		Р	FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 6 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25
							PSI.
							1ST PSI TEST T/ 9000 PSI. HELD FOR 30 MIN LOST 119 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
4/27/2012	7:00 - 11:00	4.00		37		Р	PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW
4/30/2012	6:00 - 17:00	11.00	FRAC	36	E	P	6AM [DAY 3] MIRU SUPERIOR & CHS. HLD SUPERIOR JSA. P.T. SURFACE LINES TO 9446#. LOST 368# IN 15 MINUTES. POP OFFS SET & KICK OUTS IN PUMPS.
							[STG#1] PERF & FRAC AS PER DESIGN.
							[STG#2] PERF & FRAC AS PER DESIGN.
							[STG#3] PERF BY DESIGN.
							SDFN
5/1/2012	7:00 -		FRAC	36	E	Р	7AM [DAY 4] HLD SUPERIOR JSA.
							[STG#3] FRAC AS PER DESIGN. TOTAL 30/50 SAND PUMPED IN YELLOW WELL. [921-21A3AS]=183,598# AND TOTAL FLUID PUMPED IN 921-21A3AS=7897 BBLS
							[KILL PLUG] SET KILL PLUG @ 10,700'. RDMO SUPERIOR & CHS. GRAND TOTAL 30/50 TLC SAND FOR ALL 4 WELLS ON PAD=736,439#, TOTAL FLUID=31,275 BBLS.
5/10/2012	11:30 - 12:30	1.00	COMP	30	Α	Р	MOVE OVER FROM 921-21A2DS. RUSU. ND WH. NU BOP. RU FLOOR AND TBG EQUIP.
	12:30 - 18:30	6.00	COMP	31	I	Р	MU 3-7/8" BIT, POBS, 1.87" XN. RIH AS MEAS AND PU 2-3/8" P-110 TBG. HAVE 314-JTS IN, EOT AT 9959'. FILL TBG AND PRES TEST CSG TO 4000#. GOOD. PRES TEST SURFACE CSG TO 900#. LOST 200# IN 10 MIN. BLEED OFF. SWIFN.
5/11/2012	7:00 - 7:15	0.25	COMP	48		Р	JSA- PU TBG. PWR SWIVEL. LAND HANGER.

Vell: NBU 921-2	1A3AS YELLOW						Spud Date: 1/9	/2012				
Project: UTAH-U	INTAH		Site: NB	U 921-21A	PAD			Rig Name No: MILES 3/3				
vent: COMPLE	TION	,	Start Dat	te: 5/1/201	2			End Date: 5/11/2012				
ctive Datum: RI	KB @4,855.00usft (al	ove Mean Se	a	UWI: NI	E/NE/0/9/	S/21/E/2	1/0/0/26/PM/N/10	17/E/0/833/0/0				
.evel)												
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
	7:15 - 15:00	7.75	COMP	44	С	P		CONT RIH W/ BIT AS PU TBG. TAG AT ' W/ -JTS IN. RU DRLG EQUIP. EST CIRC AND D/O PLUGS.				
								#1- C/O 8' SAND TO CBP AT 10,700'. D/O IN 4 MIN. 1000# INC. 0-1500# FCP. RIH.				
								#2- C/O 35' SAND TO CBP AT 10,808. D/O IN 4 MIN. 600# INC. 500-900# FCP. RIH.				
								#3- C/O 30' SAND TO CBP AT 10,930'. D/O IN 3 MIN. 500# INC. 800-1000# FCP. RIH.				
								PBTD AT 11,237'. BTM PERF AT 11,138'. C/O 5' TO 11,237' W/ 354-JTS IN (99' RATHOLE). CIRC CLEAN.				
								RD PWR SWIVEL. POOH AS LD 15-JT\$ TBG. PU 4" 10K HANGER, LUB IN AND LAND 340-JT\$ 2-3/8"				
								P-110 TBG W/ EOT AT 10,807.91'. RD FLOOR. ND BOP. NU WH. HOOK UP FLOW LINES. POBS AT				
								1800#, PRES TEST LINES TO 4000#, GOOD, SITP 950#, SICP 3350#, TURN OVER TO FBC AND				
								SALES, RDSU, RACK OUT EQUIP, MOVE TO 921-33F SWD, RUSU.				
								TBG DETAIL KB 26.00 4" 10K HANGER 83				
								340-JTS 2-3/8" P-110 10,778.88				
								1.87" XN POBS 2.20 EOT 10,807.91				
								31-JTS TRANSFERED FROM 21A2DS. 374-JTS DELIVERED FROM CTAP.				
								65-JTS TRANSFERED TO 21A3DS.				
								TLTR 7897, TLR 700, LTR 7197.				
	12:00 - 12:30	0.50	COMP	50				WELL TURNED TO SALES @ 1200 HR ON				
								5/11/2012- 3100 MCFD, 1920 BWPD, FCP 2600#, FTP 2950#, 20/64".				
5/12/2012	7:00 ~			50				WELL IP'D ON 5/12/12 - 1938 MCFD, 0 BOPD, 960 BWPD, CP 1651#, FTP 1015#, CK 20/64, LP 63#, 24 HR\$				

6/25/2012 10:47:40AM

2

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-21A3AS YELLOW	Wellbore No.	ОН
Well Name	NBU 921-21A3AS	Common Name	NBU 921-21A3AS
Project	UTAH-UINTAH	Site	NBU 921-21A PAD
Vertical Section	42.80	(°) North Reference	True
Azimuth			
Origin N/S		Origin E/W	
Spud Date	1/9/2012	UWI	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/
			0/0
Active Datum	RKB @4,855.00usft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	WEATHERFORD
Started	1/9/2012	Ended	
Tool Name	MWD	Engineer	Anadarko Employee

2.1.1 Tie On Point

	MD	Inc	Azi	TVD	N/S	E/W
	(ustt)	(°)	(°)	(usft)	(usft)	(usit)
Γ	22.00	0.00	0.00	22.00	0.00	0.00

2.1.2 Survey Stations

Date	Туре	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft	Build (°/100usft	Turn (°/100usft	TFace (°)
1/9/2012	Tie On	22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NORMAL	194.00	0.26	233.99	194.00	-0.23	-0.32	-0.38	0.15	0.15	0.00	233,99
CONTRACTOR OF STREET	NORMAL	280.00	1.30	50.16	279.99	0.28	0.28	0.39	1.81	1.21	204.85	176.81
	NORMAL	362.00	2.50	46.64	361.95	2.10	2.29	3.10	1.47	1.46	-4,29	-7.32
	NORMAL	452.00	3.31	25.33	451.83	5.80	4.83	7.54	1.49	0.90	-23.68	-64.09
	NORMAL	542.00	5.06	35.96	541.59	11.36	8,27	13,96	2,12	1.94	11.81	29.27
	NORMAL	632.00	6,88	38.46	631.10	18,80	13,96	23,27	2.04	2.02	2.78	9.38
	NORMAL	722.00	8.83	34.71	720.25	28.70	21.24	35.49	2.24	2.17	-4 .17	-16.59
S. S. 118 1 - 100 101 101 101	NORMAL	812.00	10.25	32.33	809.00	41.14	29.46	50.20	1,64	1.58	-2.64	-16.70
and a range entered	NORMAL	902.00	11.69	30.46	897.36	55.77	38.36	66.98	1.65	1.60	-2.08	-14.80
	NORMAL	992.00	12.25	29.71	985.40	71.92	47.72	85,19	0.65	0.62	-0.83	-15.89
	NORMAL	1,082.00	13.00	28.83	1,073.22	89.08	57.33	104.32	0.86	0.83	-0,98	-14.81
1/10/2012	NORMAL	1,172.00	12.75	33.33	1,160.96	106.25	67.67	123.94	1.15	-0.28	5.00	106.19
*	NORMAL	1,262.00	12.94	33.08	1,248.71	122.99	78.63	143.66	0.22	0,21	-0.28	-16,43
	NORMAL	1,352.00	12.63	29.58	1,336.48	139.99	88.98	163.18	0.93	-0.34	-3.89	-113.51
	NORMAL	1,442.00	11.44	30.96	1,424.50	156.20	98,43	181.49	1.36	-1.32	1.53	167.08
	NORMAL	1,532.00	10.88	29.58	1,512.80	171.24	107.22	198.49	0.69	-0.62	-1.53	-155.18
	NORMAL	1,622.00	11.44	28.71	1,601.10	186.46	115.70	215.42	0.65	0.62	-0.97	-17.16

2.1.2 Survey Stations (Continued)

Date	Туре	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft	Build (°/100usft	Turn (°/100usft	TFace (°)
1/10/2012	NORMAL	1,712.00	10.06	26.96	1,689,52	201.29	123.55	231.64) 1,58	-1.53	-1.94	-167.55
	NORMAL	1,802.00	9.56	25.58	1,778.20	215.04	130.34	246.34	0.61	-0.56	-1.53	-155.49
	NORMAL	1,892.00	9.50	25.08	1,866.96	228.51	136.72	260.55	0.11	-0.07	-0,56	-126.18
	NORMAL	1,982.00	8.69	23.71	1,955.83	241.46	142.60	274.05	0.93	-0.90	-1.52	-165.71
	NORMAL	2,072.00	7.25	21.83	2,044.95	252.96	147.44	285.78	1.63	-1.60	-2.09	-170.67
	NORMAL	2,162.00	7.00	21.71	2,134.26	263.33	151.58	296.20	0.28	-0.28	-0.13	-176.65
	NORMAL	2,252.00	4.56	17.33	2,223.79	271.84	154.68	304.55	2.75	-2.71	-4.87	-171.93
	NORMAL	2,342.00	2.44	7.46	2,313.62	277.15	155.99	309.34	2.44	-2.36	-10.97	-169.02
	NORMAL	2,432.00	1.69	346.71	2,403.56	280.34	155.94	311.65	1.16	-0.83	-23.06	-145.14
	NORMAL	2,522.00	0.44	292.46	2,493.55	281.77	155.31	312.27	1.64	-1.39	-60.28	-166.01
	NORMAL.	2,612.00	0.19	260.46	2,583.55	281.87	154.85	312.03	0,33	-0.28	-35,56	-160.15
	NORMAL	2,702.00	0.13	143.21	2,673.55	281.77	154.76	311.89	0.31	-0.07	-130.28	-155.15
	NORMAL	2,718.00	0.16	146.59	2,689.55	281.74	154.78	311.88	0,19	0.19	21.13	17.61

2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	WEATHERFORD
Started	2/26/2012	Ended	
Tool Name	MWD	Engineer	Anadarko Employee

2.2.1 Tie On Point

2.2.2 Survey Stations

Date	Type	MD	Inc	Azi	TVD	N/S	E/W	V. Sec	DLeg	Build	Turn	TFace
		(usft)	(1)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft	(°/100usft \	(%100usft	(°)
2/26/2012	Tie On	2,718.01	0.16	146.59	2,718.01	281,16	154.39	311.19	0.00	0.00	0.00	0.00
2/26/2012	NORMAL	2,753.01	0.35	175.56	2,753.01	281.01	154.43	311.11	0.64	0.54	82.77	49.22
	NORMAL	2,847.00	0.31	73.21	2,847.00	280.80	154.69	311,13	0.55	-0.04	-108.89	-143.97
*	NORMAL	2,941.00	2.50	89.81	2,940.96	280.88	156.98	312.75	2.35	2.33	17.66	18.90
entre de la companya de la companya de la companya de la companya de la companya de la companya de la companya	NORMAL.	3,036.00	0.44	110.44	3,035.93	280.76	159.40	314.30	2.20	-2.17	21.72	175.75
	NORMAL	3,130.00	0.69	128,94	3,129.92	280,28	160.18	314.48	0.33	0.27	19.68	45.61
	NORMAL.	3,225.00	0.88	132.94	3,224.92	279.42	161.16	314.52	0.21	0.20	4.21	18.10
	NORMAL	3,319.00	1.13	142.19	3,318.90	278.20	162.25	314,36	0.32	0.27	9.84	37.66
	NORMAL	3,414.00	0.44	218.44	3,413.89	277.17	162.60	313.85	1.17	-0.73	80.26	157.37
	NORMAL	3,508.00	0.69	226.19	3,507.89	276.50	161.97	312.92	0.28	0.27	8.24	20.90
	NORMAL.	3,603.00	0.69	193,94	3,602.88	275,55	161.42	311.85	0.40	0.00	-33.95	-106.12
San American State of	NORMAL	3,697.00	0.75	180.44	3,696.87	274.38	161.28	310.90	0.19	0.06	-14.36	-77.35
2/27/2012	NORMAL	3,792.00	1.00	171.44	3,791.86	272.94	161.39	309,92	0.30	0.26	-9.47	-33.35
	NORMAL	3,886.00	1,19	165.81	3,885.85	271.18	161.76	308.88	0.23	0.20	-5.99	-32,36
A Total State of the	NORMAL	3,980.00	0.69	262.56	3,979.84	270.16	161.43	307.91	1.54	-0.53	102.93	151.67
	NORMAL	4,075.00	0.56	254,94	4,074.83	269.97	160.42	307.08	0.16	-0.14	-8.02	-151.18
	NORMAL	4,169.00	0.69	220.44	4,168.83	269.42	159.61	306.12	0.42	0.14	-36.70	-88.73
P 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NORMAL	4,264.00	1.00	201.06	4,263.82	268.21	158.94	304,78	0.44	0.33	-20.40	-52.64
	NORMAL	4,358.00	1.31	193.81	4,357.80	266,40	158.39	303.08	0.36	0.33	<i>-</i> 7.71	-28.89
	NORMAL	4,453.00	0.69	256.44	4,452.78	265.21	157.57	301.65	1.23	-0.65	65.93	148.31
	NORMAL	4,547.00	0.38	232.19	4,546.78	264.89	156.78	300.88	0.40	-0.33	-25.80	-155.57
	NORMAL	4,642.00	0.63	198.19	4,641.78	264.20	156.36	300.09	0.40	0.26	-35.79	-68.00
	NORMAL	4,736.00	0.88	177.94	4,735.77	262,99	156.23	299.11	0.39	0.27	-21.54	-57.29
	NORMAL	4,831.00	1.19	175.44	4,830.75	261.27	156.33	297.92	0.33	0.33	-2.63	-9.54

2.2.2 Survey Stations (Continued)

Date	Type	MD	Inc	Azi	TVD	N/S	E/W	V. Sec	DLeg	Build	Turn	TFace
		(usft)	(°)	(9)	(usft)	(usft)	(usft)	(usft)	(°/100usft	(°/100usft	(°/100 usft	(9)
0/07/00/40	NODMAN	1	1-1	400.00	4 00 4 770)		<u>)</u>	
2/27/2012		4,925.00	1.50	169.06	4,924.73	259.09	156.64	296.53	0.37	0.33	-6.79	-29,00
	NORMAL	5,020.00	0.81	217.06	5,019.71	257.34	156.48	295.13	1.19	-0.73	50.53	147.86
	NORMAL	5,114.00	0.44	263.56	5,113.70	256.77	155.72	294.20	0.64	-0.39	49.47	147.81
	NORMAL	5,209.00	0.56	297.44	5,208.70	256.94	154.94	293.80	0.33	0.13	35.66	85.44
	NORMAL	5,303.00	0.50	259.31	5,302.70	257.07	154.13	293.35	0.37	-0.06	-40.56	-118.37
	NORMAL	5,398.00	0.50	204.06	5,397.69	256.62	153.55	292.62	0.49	0.00	-58.16	-117.62
	NORMAL	5,492.00	0.56	138.69	5,491.69	255.90	153.69	292.18	0.61	0.06	-69.54	-117.64
**	NORMAL	5,587.00	1.19	304.31	5,586.69	256.11	153,18	291.99	1,83	0.66	174.34	170.21
	NORMAL	5,681.00	1.31	296.69	5,680.66	257.14	151.42	291.55	0.22	0.13	-8.11	-58.02
	NORMAL	5,776.00	0.94	292.56	5,775.64	257.93	149.73	290.98	0.40	-0.39	-4.35	-169.70
	NORMAL NORMAL	5,870.00	0.75	293.56	5,869.63	258,47	148,45	290.51	0.20	-0.20	1.06	176.06
		5,964.00	0.75	281.56	5,963.63	258.84	147.28	289.99	0.17	0.00	-12.77	-96.00
0/00/0040	NORMAL	6,059.00	0.50	280.44	6,058.62	259.04	146.27	289.44	0.26	-0,26	-1.18	-177.76
2/28/2012	NORMAL	6,153.00	0.63	283.06	6,152.62	259.23	145.36	288.97	0.14	0.14	2.79	12.55
	NORMAL	6,248.00	0.63	276.94	6,247.61	259.41	144.33	288.40	0.07	0.00	-6.44	-93.06
	NORMAL	6,342.00	0.56	261.69	6,341.61	259.40	143.37	287.74	0.18	-0.07	-16.22	-121.35
	NORMAL	6,436.00	0.44	232.56	6,435.60	259.12	142.62	287.03	0.29	-0.13	-30.99	-129.35
	NORMAL	6,531.00	0.63	212.69	6,530.60	258.46	142.05	286.15	0.28	0,20	-20.92	-54,54
	NORMAL	6,625.00	0.81	200.19	6,624.59	257.40	141.54	285.03	0.25	0.19	-13.30	-47.47
	NORMAL	6,719.00	0.88	187.06	6,718.58	256,06	141.23	283,83	0.22	0.07	-13.97	-76.77
	NORMAL	6,814.00	0.88	318,31	6,813.58	255.88	140.65	283.31	1.69	0,00	138.16	155.62
	NORMAL	6,909.00	0.75	322.81	6,908.57	256.92	139.79	283.49	0.15	-0.14	4.74	156.02
	NORMAL	7,003.00	0.44	305.44	7,002.56	257.62	139.12	283.55	0.38	-0.33	-18.48	-158.30
	NORMAL	7,098.00	0.19	246.19	7,097.56	257.77	138.68	283.36	0.40	-0.26	-62.37	-154.53
	NORMAL	7,192.00	0.31	220.81	7,191.56	257.51	138.37	282.96	0.17	0,13	-27.00	-55,86
	NORMAL	7,287.00	0.50	195.06	7,286.56	256,92	138.10	282.34	0.27	0.20	-27.11	-57.13
	NORMAL	7,381.00	0.69	189.56	7,380.55	255.96	137.90	281.50	0.21	0.20	-5.85	-19.49
	NORMAL	7,476.00	0.69	184.31	7,475.54	254.83	137.76	280.57	0.07	0.00	-5.53	-92.62
	NORMAL	7,570.00	0.88	180.94	7,569.54	253.54	137.71	279.59	0.21	0.20	-3.59	-15.35
	NORMAL	7,664.00	0.88	174.81	7,663.52	252.10	137.76	278.57	0.10	0.00	-6.52	-93.06
	NORMAL	7,759.00	1.19	180.94	7,758.51	250.39	137.81	277.35	0.35	0.33	6.45	22.74
	NORMAL	7,853.00	1.02	162.33	7,852.49	248.62	138.05	276.21	0.42	-0.18	-19.80	-124.45
	NORMAL	7,948.00	1.31	167.69	7,947.47	246.75	138.53	275.17	0.33	0.31	5.64	23.29
2/29/2012	NORMAL	8,042.00	2.31	143.44	8,041.43	244.18	139.89	274.21	1.32	1.06	-25.80	-49.99
	NORMAL	8,137.00	1.19	131.06	8,136.38	241.99	141.78	273.89	1.24	-1,18	-13.03	-167.47
	NORMAL	8,231.00	1.25	100.44	8,230.36	241.16	143.52	274.46	0.69	0,06	-32.57	-100.17
	NORMAL	8,325.00	1.63	0.00	8,324.34	242.32	144.53	275.99	2.37	0.40	-106.85	-133.94
	NORMAL	8,420.00	1,56	120.56	8,419.32	243.01	145.64	277.26	2.92	-0.07	126.91	150.99
	NORMAL	8,514.00	1.44	162.06	8,513.29	241.24	147.11	276.95	1.14	-0.13	44.15	116.77
	NORMAL	8,609.00	1.44	176.19	8,608.26	238.91	147.56	275.55	0.37	0.00	14.87	97.06
	NORMAL	8,704.00	1.63	166.31	8,703.23	236.40	147.95	273.98	0.34	0.20	-10.40	-59.33
	NORMAL	8,798.00	1.69	157.69	8,797.19	233.82	148.80	272.66	0.27	0.06	-9.17	-80.82
	NORMAL	8,893.00	1.94	164.56	8,892.14	230.98	149.76	271.23	0.35	0.26	7.23	44.50
	NORMAL	8,987.00	1.88	162.19	8,986.09	227.98	150.65	269.63	0.11	-0.06	-2.52	-128.40
3/1/2012	NORMAL	9,081.00	1.81	162.94	9,080.04	225.09	151.56	268.13	0.08	-0.07	0.80	161.34
	NORMAL	9,176.00	1.81	161.31	9,174.99	222.23	152.48	266.66	0.05	0.00	-1.72	-90.81
	NORMAL	9,270.00	1.75	158.81	9,268.95	219.49	153.48	265.32	0.10	-0.06	-2.66	-128.94
*	NORMAL	9,365.00	1.88	161.56	9,363.90	216,66	154.49	263,94	0,16	0.14	2.89	35.20
	NORMAL	9,459.00	1.94	156.81	9,457.85	213.73	155.61	262.55	0.18	0.06	-5.05	-71.63
	NORMAL	9,553.00	2.00	159.00	9,551.79	210.74	156.82	261.18	0.10	0.06	2.33	52.54
	NORMAL	9,648.00	2.06	158.06	9,646.73	207.61	158.05	259.72	0.07	0,06	-0.99	-29,50
	NORMAL	9,648.00	2.06	158.06	9,646.73	207.61	158.05	259.72	0.00	0.00	0.00	0.00
	NORMAL	9,742.00	2.25	157.19	9,740.67	204.34	159.40	258.23	0.21	0.20	-0.93	-10.20
	NORMAL	9,837.00	2.50	155.81	9,835.59	200.73	160.97	256.65	determinent of the commercial control of	0.26	-1.45	-13.57
	NORMAL	9,931.00	2.56	148.94	9,929.49	197.06	162.89	255.27	in and an order of a second	and the second second	-7,31	-82.25

2.2.2 Survey Stations (Continued)

Date Type	MD (usft)	Inc (°)	Azi (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft	Build (°/100usft	Turn (°/100usft	TFace (°)
	1		. 'Y	(40,9		177	,))	```i``	
3/1/2012 NORMAL	10,026.00	2.63	148.69	10,024.40	193.38	165.12	254.08	0.07	0.07	-0.26	-9.31
3/2/2012 NORMAL	10,214.00	2.94	139.31	10,212.18	186.04	170.51	252.35	0.29	0.16	-4.99	-60.52
NORMAL	10,309.00	2.81	137.94	10,307.06	182.47	173,66	251.87	0,15	-0.14	-1.44	-152,82
NORMAL	10,403.00	2.69	144.19	10,400.95	178.97	176.49	251.23	0.34	-0.13	6.65	114.91
NORMAL	10,498.00	2.81	141.06	10,495.84	175.35	179.26	250.45	0.20	0.13	-3.29	-52.94
NORMAL	10,593.00	2.69	141.69	10,590.73	171.79	182.10	249.77	0.13	-0.13	0.66	166.18
3/3/2012 NORMAL	10,687.00	2.81	139.56	10,684.62	168.30	184.96	249.16	0.17	0.13	-2.27	-41.49
NORMAL	10,781.00	3,00	139.44	10,778.50	164.68	188.06	248.60	0.20	0.20	-0.13	-1.89
NORMAL	10,876.00	2.94	139.31	10,873.37	160.94	191.26	248.04	0.06	-0.06	-0.14	-173.66
NORMAL.	10,970.00	3.25	143.69	10,967.24	156.97	194.41	247.26	0.41	0.33	4.66	39.54
NORMAL	11,065.00	3.31	141.94	11,062.08	152.64	197.70	246,32	0.12	0.06	-1.84	-59.94
NORMAL	11,159.00	3.25	145.94	11,155.93	148.29	200.86	245.28	0.25	-0.06	4.26	106.68
NORMAL	11,230.00	3.44	145,56	11,226.80	144.87	203,20	244.36	0.27	0.27	-0.54	-6.85
NORMAL	11,290.00	3.44	145.56	11,286.70	141.90	205.23	243.56	0.00	0.00	0.00	0.00

	STATE OF UTAH		FORM 9									
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIR			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576								
	Y NOTICES AND REPORTS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE								
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.			7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES								
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 921-21A3AS								
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047506100000									
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 10ATURAL BUTTES											
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL		COUNTY: UINTAH										
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENE Section: 2	HP, RANGE, MERIDIAN: 11 Township: 09.0S Range: 21.0E Merio	3	STATE: UTAH									
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA												
TYPE OF SUBMISSION TYPE OF ACTION												
	ACIDIZE	LTER CASING	CASING REPAIR									
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	С	HANGE TUBING	CHANGE WELL NAME								
9/28/2015	CHANGE WELL STATUS	c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE								
SUBSEQUENT REPORT	DEEPEN	☐ FF	RACTURE TREAT	NEW CONSTRUCTION								
Date of Work Completion:	OPERATOR CHANGE	□ рі	LUG AND ABANDON	PLUG BACK								
	PRODUCTION START OR RESUME	RI	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION								
SPUD REPORT Date of Spud:	✓ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON								
	TUBING REPAIR	VENT OR FLARE		WATER DISPOSAL								
DRILLING REPORT	WATER SHUTOFF	☐ sı	I TA STATUS EXTENSION	APD EXTENSION								
Report Date:	WILDCAT WELL DETERMINATION	□ o	THER	OTHER:								
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show			onths volumes atc								
KERR MCGEE OIL	& GAS ONSHORE LP is requently and the strategy of the attached recomplete.	estin	g to do a recomplete	Accepted by the Utah Division of Oil, Gas and Mining								
				Date: September 28, 2015								
				Ву:								
NAME (PLEASE PRINT)	PHONE NUME	BER	TITLE									
Doreen Green	435 781-9758		Regulatory Analyst II									
SIGNATURE N/A			DATE 9/25/2015									



Greater Natural Buttes Unit

NBU 921-21A3AS
RE-COMPLETIONS PROCEDURE
NBU 921-21A PAD
FIELD ID: YELLOW WELL

DATE: 9/22/2015
AFE#:2028692
API#:4304750610
USER ID: GBN569 (Frac Invoices Only)

COMPLETIONS ENGINEER: Jose Moreno

201-424-8022 (Cell)

REMEMBER SAFETY FIRST!

<u>Name:</u> <u>NBU 921-21A3AS</u>

Location: NE SW NE NE Sec 21 T9S R21E

LAT: 40.026061 **LONG:** -109.550279 **COORDINATE:** NAD83 (Surface Location)

Uintah County, UT

Date: 4/13/2012

ELEVATIONS: 4829' GL 4855' KB Frac Registry TVD: 11287'

TOTAL DEPTH: 11290' **PBTD:** 11237'

SURFACE CASING: 8 5/8", 28# J-55 LT&C @ 2734'

PRODUCTION CASING: 4 1/2", 11.6#, P-110 DQX LTC @ 5124' 4 1/2", 11.6#, P-110 LTC @ 5124-11283'

Marker Joint 5072-5094, 7850-7871, and 10624-10644'

TUBULAR PROPERTIES:

	BURST	COLLAPSE	DRIFT DIA.	CAPACITIES	
	(psi)	(psi)	(in.)	(bbl/ft)	(gal/ft)
2 3/8" 4.7# N-80	11,200	11,780	1.901"	0.00387	0.1624
tbg					
4 ½" 11.6# I-80	7780	6350	3.875"	0.0155	0.6528
(See above)					
4 ½" 11.6# P-	10691	7580	3.875"	0.0155	0.6528
110					
2 3/8" by 4 ½"				0.0101	0.4227
Annulus					

TOPS: BOTTOMS:

1723' Green River Top

2019' Bird's Nest Top

2350' Mahogany Top

5039' Wasatch Top 8237' Wasatch Bottom

8237' Mesaverde Top 11290' Mesaverde Bottom (TD)

T.O.C. @ 1590' SLB CBL 3/23/2012

Hydraulic Isolation @ 3810'

GENERAL NOTES:

- Please note that:
 - All stages on this procedure may or may not be completed due to low frac gradients, timing, or other possible reasons. Total stages completed can be found in the post-job-report.
 - CBP depth on this procedure is only to be used as a reference. This depth is subject to change as per field operations and the discretion of the wireline supervisor and field foreman.
- A minimum of 6 tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Halliburton's Induction-Density-Neutron log dated 3/4/2012
- 1 fracturing stages required for coverage.
- Procedure calls for 2 CBP's (8000 psi).

- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 0.5 gpt. Remember to pre-load the casing with scale inhibitor.
- FR will be pumped at 0.3 gpt for this well. This concentration will be raised or lowered on the job at the discretion of the APC foreman per the well's treating pressure.
- 30/50 mesh Ottawa sand, Slickwater frac.
- Maximum surface pressure 7000 psi.
- If casing pressure test fails. Contact Denver Engineer.
- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- Call flush at 0 PPG @ inline densiometers. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.
- Max Sand Concentration: Mesaverde 1 ppg;
- If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing design will over flush stage by 5 bbls (from top perf)
- TIGHT SPACING ON STAGE
- If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work

Existing Perforations:

Please insert perforations from OpenWells. Make sure you QC perfs.

PERFORATIONS											
Date	Formation	Zone	Тор	Btm	SPF	No. Holes	Diameter	Phasing	Reason	Status	Comments
05/01/2012	2 MESAVERD	E BLACKHAWK	10743	10744	4	4	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10761	10764	4	12	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10786	10788	4	8	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10824	10826	3	6	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10854	10855	3	3	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10916	10919	3	9	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10928	10930	3	6	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	11060	11062	4	8	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	11134	11138	4	16	0.36	90	PRODUCTION	OPEN	

Relevant History:

5/1/2012: Originally completed in Mesaverde formation (1 stages) with ~ 335,919 gallons of Slickwater, 183,479 lbs of 30/50 Ottawa Sand sand

11/20/2014: Last slickline report:

	From	То	Duration (hr)	Phase	Code	Code description	Sub Code	Sub description	P/U	Operation
1	07:00	11:00	4.00	MAINT <u>v</u>	35 🔻	SLICKLINE	V			DRIVE TO LOCATION, HAVE SAFETY MEETING, RIG UP, TUBING PRESSURE 242, CASING PRESSURE 281, RIH WITH JDC TO 10714" AND FISH PAD PLUNGER, PLUNGER GOOD, RIH WITH JDC TO 10778" AND FISH SPRING, RIH WITH 1.90 BROACH TO SN, DROP SPRING, RIH AND CHASE SPRING TO SN, DROP PAD PLUNGER, RIG DOWN MOVE LOCATIONS.

5/11/2012: Tubing Currently Landed @~10,808' (340 JTS)

H2S History:

Insert recent/available H₂S data from Amulet (??)

<u>PROCEDURE</u>: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)

- 1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.
- 2. The tubing is below the proposed CBP depth. TOOH with 2-3/8", 4.7#, P-110 tubing. Visually inspect for scale and consider replacing if needed. The tubing is above the proposed CBP depth, RIH with 2-3/8", 4.7#, P-110 tubing and tag for fill before TOOH. Visually inspect for scale and consider replacing if needed
- 3. If the looks ok consider running a gauge ring to 10,324 (50' below proposed CBP). Otherwise P/U a mill and C/O to 10,324 (50' below proposed CBP).
- 4. Set 8000 psi CBP at ~ 10274'. ND BOPs and NU frac valves Test frac valves and casing to to 7,000 psi for 15 minutes; if pressure test fails contact Denver engineer and see notes above. Lock OPEN the Braden head valve. Flow from annulus will be visually monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
- 5. Pressure test frac lines to max surface pressure + 1000 psi for 15 minutes. Pressure loss should be less than 10% to be considered acceptable. Check and correct for existing leaks.
- 6. Perf the following with 3-1/8" gun, 19 gm, 0.40" hole:

Zone	From	То	spf	# of shots
MESAVERDE	10212	10214	3	6
MESAVERDE	10222	10224	3	6
MESAVERDE	10230	10232	3	6
MESAVERDE	10242	10244	3	6

- 7. Breakdown perfs and establish injection rate (<u>include scale inhibitor in fluid</u>). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~10212' and flush only with recycled water .
- 8. Set 8000 psi CBP at~10154'.
- 9. ND Frac Valves, NU and Test BOPs.
- 10. TIH with 3 7/8" bit, pump open sub, SN and tubing.
- 11. Drill 1 plugs and clean out to a depth of 10264' (~ 20' below bottom perfs).
- 12. Shift pump open bit sub and land tubing at 10,182'. Flow back completion load. RDMO.
- 13. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
- 14. Leave surface casing valve open. Monitor and report any flow from surface casing. RDMO

Key Contact information

For design questions, please call Completion Engineer

Jose Moreno: 201/424-8022, 720/929-4380

For field implementation questions, please call

Completion Supervisor Foreman

Jeff Samuels: 435/828-6515, 435/781-7046

Brad Burman: 435/828-8006, 435/781-7042

Production Engineer

Robert Miller: 435/781-7041, 435/828-6510

Mickey Doherty: 435/781-9740, 406/491-7294

Ronald Trigo: 435/781-7037, 352/213-6630

Ryckur Schuttler: 435/781-7055, 954/675-1037

Boone Bajgier: 435/781-7096, 713/416-4816

Jake Roberts: 435/781-7015, 716/499-6569

Completion Manager

Jeff Dufresne: 720/929-6281, 303/241-8428

Vernal Main Office

435/789-3342

Vernal IOC

435/781-9751

Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435/789-3342

Police: 435/789-5835 Fire: 435/789-4222

Service Company Supplied Chemicals - Job Totals

Friction Reducer	30	gals @	0.3	GPT
Surfactant	75	gals @	0.75	GPT
Clay Stabilizer	0	gals @	0.0	GPT
15% Hcl	250	gals @	250	gal/stg
Iron Control for acid	1	gals @	5.0	GPT of acid
Surfactant for acid	1	gals @	2.0	GPT of acid
Corrosion Inhibitor for acid	2	gals @	6.0	GPT of acid

Third Party Supplied Chemicals Job Totals - Include Pumping Charge if Applicable

Scale Inhibitor	50	gals pumped	0.5	GPT (see schedule)
Biocide	30	gals @	0.3	GPT

		Pe	erfs			Rate	Fluid	Initial	Final	Fluid	Volume	Cum Vol	Volume	Cum Vol	Fluid	Sand	Sand	Cum. Sand	Footage from	Scale Inhib.,
Stage	Zone	Top, ft.	Bot., ft	SPF	Holes	ВРМ	Туре	ppg	ppg		gals	gals	BBLs	BBLs	% of frac	% of frac	lbs	lbs	CBP to Flush	
1	MESAVERDE	10212	10214	3	6	Varied	Pre-Pad & Pump-in test			Slickwater	6,666	6,666	159	159						3
	MESAVERDE	10222	10224	3	6	0	ISIP and 5 min ISIP													
	MESAVERDE	10230	10232	3	6	50	Slickwater Pad			Slickwater	71,775	78,441	1,709	1,868	82.5%	0.0%	0	0		36
	MESAVERDE	10242	10244	3	6	50	Slickwater Ramp	0.25	0.625	Slickwater	5,075	83,516	121	1,988	5.8%	21.9%	2,220	2,220		3
	MESAVERDE			3	8	50	SW Sweep	0	0	Slickwater	0	83,516	0	1,988		0.0%	0	2,220		0
	MESAVERDE			3	8	50	Slickwater Ramp	0.63	0.75	Slickwater	5,075	88,591	121	2,109		34.4%	3,489			3
	MESAVERDE					50	SW Sweep	0	0	Slickwater	0	88,591	0	2,109		0.0%	0	5,709		0
	MESAVERDE					50	Slickwater Ramp	0.25	0.75	Slickwater	0	88,591	0	2,109		0.0%	0	5,709		0
	MESAVERDE					50	Slickwater Ramp	0.75	1	Slickwater	5,075	93,666	121	2,230	5.8%	43.8%	4,441	10,150		3
	MESAVERDE					50	Flush (4-1/2)				6,666	100,333	159	2,389				10,150		0
	MESAVERDE						ISDP and 5 min ISDP					100,333								47
	MESAVERDE																			
	MESAVERDE																			
	MESAVERDE									Sand laden Volur	me	87,000								
						l										gal/ft	3,000	350	lbs sand/ft	
			# of Perf	s/stage	24									Flush depth	10,212		BP depth	10,154	58	
						47.8	<< Above pump time (min)													

Name NBU 921-21A3AS Perforation and CBP Summary

		Per	forations					
Stage	Zones	Top, ft	Bottom, ft	SPF	Holes	Frac	ture Cover	age
1	MESAVERDE	10212	10214	3	6	10211.5	to	10246
	MESAVERDE	10222	10224	3	6			
	MESAVERDE	10230	10232	3	6			
	MESAVERDE	10242	10244	3	6			
	MESAVERDE			3				
	MESAVERDE			3				
	MESAVERDE							
	MESAVERDE							
					•			
	# of Perfs/stage				24	CBP DEPTH	10,154	
								·

MD	TVD	INC	MD	TVD	INC
22.01	22.01	0	5681	5652.38	1.3
194.01	194.01	0.26	5776	5747.36	0.9
280.01	280	1.3	5870	5841.35	0.7
362.01	361.96	2.5	5964	5935.35	0.7
452.01	451.84	3.31	6059	6030.34	0.
542.01	541.6	5.06	6153	6124.34	0.6
632.01	631.11	6.88	6248	6219.33	0.6
722.01	720.31	8.38	6342	6313.33	0.5
812.01	809.12	10.25	6436	6407.32	0.4
902.01	897.47	11.69	6531	6502.32	0.6
992.01	985.52	12.25	6625	6596.31	0.8
1082.01	1073.34	13	6719	6690.3	0.8
1172.01	1161.08	12.75	6814	6785.3	0.8
1262.01	1248.83	12.94	6909	6880.29	0.7
1352.01	1336.6	12.63	7003	6974.28	0.4
1442.01	1424.62	11.44	7098	7069.28	0.1
1532.01	1512.91	10.88	7192	7163.28	0.3
1622.01	1601.21	11.44	7287	7258.28	0.5
1712.01	1689.63	10.06	7381	7352.27	0.6
1802.01	1778.31	9.56	7476	7447.26	0.6
1892.01	1867.07	9.5	7570	7541.26	0.8
1982.01					
	1955.94	8.69	7664	7635.24	0.8
2072.01	2045.07	7.25	7759	7730.23	1.1
2162.01	2134.37	7	7853	7824.21	1.0
2252.01	2223.91	4.56	7948	7919.19	1.3
2342.01	2313.74	2.44	8042	8013.14	2.3
2432.01	2403.68	1.69	8137	8108.1	1.1
2522.01	2493.66	0.44	8231	8202.08	1.2
2612.01	2583.66	0.19	8325	8296.05	1.6
2702.01	2673.66	0.13	8420	8391.01	1.5
2718.01	2689.66	0.16	8514	8484.98	1.4
2753	2724.65	0.35	8609	8579.95	1.4
2847	2818.65	0.31	8704	8674.92	1.6
2941	2912.65	0.25	8798	8768.88	1.6
3036	3007.65	0.44	8893	8863.83	1.9
3130	3101.64	0.69	8987	8957.78	1.8
3225	3196.64	0.88	9081	9051.73	1.8
3319	3290.62	1.13	9176	9146.69	1.8
3414	3385.61	0.44	9270	9240.64	1.7
3508	3479.61	0.69	9365	9335.59	1.8
3603	3574.6	0.69	9459	9429.54	1.9
3697	3668.59	0.75	9553	9523.48	
3792	3763.58	1	9648		2.0
3886	3857.57	1.19	9742	9712.36	2.2
3980	3951.56	0.69	9837	9807.28	2
4075	4046.55	0.56	9931	9901.19	2.5
4169	4140.55	0.69	10026	9996.09	2.6
4264	4235.54	1	10120		2.6
4358	4329.52	1.31	10214		2.9
4453	4424.5	0.69	10309		2.8
4547	4518.5	0.38	10403	10278.70	2.6
4642	4613.5	0.63	10498		2.8
4736	4707.49	0.88	10498	10467.34	2.6
		1.19		10562.43	2.8
4831	4802.47		10687		2.8
4925	4896.45	1.5	10781	10750.2	2.0
5020	4991.43	0.81	10876	10845.08	2.9
5114	5085.42	0.44	10970		3.2
5209	5180.42	0.56	11065	11033.78	3.3
5303	5274.42	0.5	11159		3.2
5398	5369.41	0.5	11230		3.4
5492	5463.41	0.56	11290	11258.4	3.4
5587	5558.41	1.19			

Acid Pickling and H2S Procedures (If Required)

**PROCEDURE FOR PUMPING ACID DOWN TBG

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBLS 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

- 1. PUMP 5-10 BBLS 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
- 2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
- 3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
- 4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
- 5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
- 6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
- 7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

** PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

- 1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
- 2. PUMP 25 BBLS MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
- 3. IF WELL HAS PRESSURE AFTER 2 HOURS RETEST CASING AND TUBING FOR H2S.
- 4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
- 5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

^{**} As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		i	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
SUNDR	RY NOTICES AND REPORTS	ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
current bottom-hole depth, i	reenter plugged wells, or to drill horiz			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 921-21A3AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.			9. API NUMBER: 43047506100000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 802			9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNI 0833 FFI				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH		idian: S	6	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		LTER CASING	CASING REPAIR
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 1. TYPE OF WELL Gas Well 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 21 Township: 09.0S Range: 21.0E Meridian: S 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, CTYPE OF SUBMISSION TYPE OF SUBMISSION TYPE OF ACTION	CHANGE WELL NAME			
	CONVERT WELL TYPE			
	DEEPEN	F	RACTURE TREAT	NEW CONSTRUCTION
10/12/2015	OPERATOR CHANGE	□ Р	LUG AND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME	□ R	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
	REPERFORATE CURRENT FORMATION	□ s	IDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF		I TA STATUS EXTENSION	APD EXTENSION
nopon suio.			THE D	
	WILDCAT WELL DETERMINATION		OTHER	OTHER:
The NBU 921-21A3	COMPLETED OPERATIONS. Clearly show BAS well was returned to publications a recomplete. Than	rodu	ction on 10/12/2015	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 15, 2015
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUM 720 929-6808	IBER	TITLE Regulatory Specialist	
SIGNATURE			DATE	
N/A			10/14/2015	

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
current bottom-hole depth, i	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
FOR PERMIT TO DRILL form for such proposals. 1. TYPE OF WELL Gas Well 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 21 Township: 09.0S Range: 21.0E Meridian: S 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION			
	ISHORE, L.P.		1.
KERR-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 21 Township: 09.0S Range: 21.0E Meridian: S 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION ADDICE OF INTENT APPROXIMATE date work will start: 10/28/2015 CHANGE TO PREVIOUS PLANS CHANGE TUBING CHANGE WELL STATUS CHANGE TUBING CHANGE WELL STATUS COMMINGLE PRODUCING FORMATIONS CONVERT WELL TYPE Deepen Deepen FRACTURE TREAT NEW CONSTRUCTION			
FOOTAGES AT SURFACE:			1
QTR/QTR, SECTION, TOWNSH		lian: S	I -
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
	CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME
10/28/2015		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT			
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	▼ RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	L TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show a	all pertinent details including dates, d	lepths, volumes, etc.
	as Onshore, LP respectfully	•	
	the NBU 921-21A3AS well.		Utah Division of Oil, Gas and Mining
F	procedure for details. Thank	you.	Special Mod
			Date: Qctober 28, 2015
			By: Dork Dunt
NAME (PLEASE PRINT)	PHONE NUMB		
Kristina Geno	720 929-6824	Regulatory Analyst	
SIGNATURE N/A		DATE 10/27/2015	



Greater Natural Buttes Unit

NBU 921-21A3AS
RE-COMPLETIONS PROCEDURE
NBU 921-21A PAD
FIELD ID: YELLOW WELL

DATE: 10/26/15

AFE#:

API#:4304750610

USER ID: GBN569 (Frac Invoices Only)

COMPLETIONS ENGINEER: Jose Moreno

201-424-8022 (Cell)

REMEMBER SAFETY FIRST!

Name: NBU 921-21A3AS

Location: NE NE Sec 21 T9S R21E

LAT: 40.026061 **LONG:** -109.550279 **COORDINATE:** NAD83 (Surface Location)

Uintah County, UT

Date: 4/13/2012

ELEVATIONS: 4829' GL 4855' KB Frac Registry TVD: 11287'

TOTAL DEPTH: 11290' **PBTD:** 11237'

SURFACE CASING: 8 5/8", 28# J-55 LT&C @ 2734'

PRODUCTION CASING: 4 1/2", 11.6#, P-110 DQX LTC @ 5124' 4 1/2", 11.6#, P-110 LTC @ 5124-11283'

Marker Joint 5072-5094, 7850-7871, and 10624-10644'

TUBULAR PROPERTIES:

	BURST	COLLAPSE	DRIFT DIA.	CAPACITIES	
	(psi)	(psi)	(in.)	(bbl/ft)	(gal/ft)
2 3/8" 4.7# N-80	11,200	11,780	1.901"	0.00387	0.1624
tbg					
4 ½" 11.6# I-80	7780	6350	3.875"	0.0155	0.6528
(See above)					
4 ½" 11.6# P-	10691	7580	3.875"	0.0155	0.6528
110					
2 3/8" by 4 ½"				0.0101	0.4227
Annulus					

TOPS: BOTTOMS:

1723' Green River Top

2019' Bird's Nest Top

2350' Mahogany Top

5039' Wasatch Top 8237' Wasatch Bottom

8237' Mesaverde Top 11290' Mesaverde Bottom (TD)

T.O.C. @ 1590' SLB CBL 3/23/2012

Hydraulic Isolation @ 3810'

GENERAL NOTES:

- Please note that:
 - All stages on this procedure may or may not be completed due to low frac gradients, timing, or other possible reasons. Total stages completed can be found in the post-job-report.
 - CBP depth on this procedure is only to be used as a reference. This depth is subject to change as per field operations and the discretion of the wireline supervisor and field foreman.
- A minimum of **34** tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Halliburton's Induction-Density-Neutron log dated 3/4/2012
- 2 fracturing stages required for coverage.
- Procedure calls for 3 CBP's (8000 psi).

2

- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 0.5 gpt. Remember to pre-load the casing with scale inhibitor.
- FR will be pumped at 0.3 gpt for this well. This concentration will be raised or lowered on the job at the discretion of the APC foreman per the well's treating pressure.
- 30/50 mesh Ottawa sand, Slickwater frac.
- Maximum surface pressure 7000 psi.
- If casing pressure test fails. Contact Denver Engineer.
- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- Call flush at 0 PPG @ inline densiometers. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.
- Max Sand Concentration: Mesaverde 1 ppg;
- If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing design will over flush stage by 5 bbls (from top perf)
- TIGHT SPACING ON STAGE 1
- If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work

Existing Perforations:

Please insert perforations from OpenWells. Make sure you QC perfs.

							PERFORA	TIONS			
Date	Formation	Zone	Тор	Btm	SPF	No. Holes	Diameter	Phasing	Reason	Status	Comments
05/01/2012	2 MESAVERD	E BLACKHAWK	10743	10744	4	4	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10761	10764	4	12	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10786	10788	4	8	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10824	10826	3	6	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10854	10855	3	3	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10916	10919	3	9	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	10928	10930	3	6	0.36	120	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	11060	11062	4	8	0.36	90	PRODUCTION	OPEN	
05/01/2012	2 MESAVERD	E BLACKHAWK	11134	11138	4	16	0.36	90	PRODUCTION	OPEN	

Relevant History:

5/1/2012: Originally completed in Mesaverde formation (1 stages) with ~ 335,919 gallons of Slickwater, 183,479 lbs of 30/50 Ottawa Sand sand

11/20/2014: Last slickline report:

	From	То	Duration (hr)	Phase	Code	Code description	Sub Code	Sub description	P/U	Operation
1	07:00	11:00	4.00	MAINT <u>▼</u>	36 🔻	SLICKLINE	Y			DRIVE TO LOCATION, HAVE SAFETY MEETING, RIG UP, TUBING PRESSURE 242, CASING PRESSURE 281, RIH WITH JDC TO 10714" AND FISH PAD PLUNGER, PLUNGER GOOD, RIH WITH JDC TO 10778" AND FISH SPRING, RIH WITH 1.90 BROACH TO SN, DROP SPRING, RIH AND CHASE SPRING TO SN, DROP PAD PLUNGER, RIG DOWN MOVE LOCATIONS.

5/11/2012: Tubing Currently Landed @~10,808' (340 JTS)

10/07/2015 FRAC STG#1, SET KILLPLUG, RDMO. 1ST ROUND OF RECOMPLETES

10/12/2015 321 jts 23/8 P-110 tbg w/ 1.875 xn & pump open bs

H2S History:

Insert recent/available H₂S data from Amulet (??)

<u>PROCEDURE</u>: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)

- 1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.
- 2. The tubing is below the proposed CBP depth. TOOH with 2-3/8", 4.7#, P-110 tubing. Visually inspect for scale and consider replacing if needed. The tubing is above the proposed CBP depth, RIH with 2-3/8", 4.7#, P-110 tubing and tag for fill before TOOH. Visually inspect for scale and consider replacing if needed
- 3. Set 8000 psi CBP at ~ 9828'. ND BOPs and NU frac valves Test frac valves and casing to to 7,000 psi for 15 minutes; if pressure test fails contact Denver engineer and see notes above. Lock OPEN the Braden head valve. Flow from annulus will be visually monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
- 4. Pressure test frac lines to max surface pressure + 1000 psi for 15 minutes. Pressure loss should be less than 10% to be considered acceptable. Check and correct for existing leaks.
- 5. Perf the following with 3-1/8" gun, 19 gm, 0.40" hole:

Zone	From	То	spf	# of shots
MESAVERDE	9601	9602	3	3
MESAVERDE	9618	9619	3	3
MESAVERDE	9647	9648	3	3
MESAVERDE	9687	9688	3	3
MESAVERDE	9710	9711	3	3

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MESAVERDE 9739 9740 3 3
MESAVERDE 9754 9755 3 3
MESAVERDE 9797 9798 3 3
```

6. Set 8000 psi CBP at~9586' .Breakdown perfs and establish injection rate (<u>include scale inhibitor in fluid</u>). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~9601' and trickle 250gal 15% HCL w/ scale inhibitor in flush

NOTE: TIGHT SPACING THIS STAGE, OVERFLUSH BY 5BBLS

7. Perf the following with 3-1/8" gun, 19 gm, 0.40" hole:

Zone	From	To	spf	# of shots
MESAVERDE	9387	9388	3	3
MESAVERDE	9414	9415	3	3
MESAVERDE	9431	9432	3	3
MESAVERDE	9455	9456	3	3
MESAVERDE	9483	9484	3	3
MESAVERDE	9535	9536	3	3
MESAVERDE	9552	9553	3	3
MESAVERDE	9570	9571	3	3

- 8. Breakdown perfs and establish injection rate (<u>include scale inhibitor in fluid</u>). Fracture as outlined in Stage 1 on attached listing. Under-displace to ~9387' and flush only with recycled water .
- 9. Set 8000 psi CBP at~9337'
- 10. ND Frac Valves, NU and Test BOPs.
- 11. TIH with 3 7/8" bit, pump open sub, SN and tubing.
- 12. Drill 2 plugs and clean out to a depth of 9818' (~ 20' below bottom perfs).
- 13. Shift pump open bit sub and land tubing at 9571'. Flow back completion load. RDMO.
- 14. Clean out well with foam and/or swabbing unit until steady flow has been established from completion.
- 15. Leave surface casing valve open. Monitor and report any flow from surface casing. RDMO

Key Contact information

For design questions, please call Completion Engineer

Jose Moreno: 201/424-8022, 720/929-4380

For field implementation questions, please call

Completion Supervisor Foreman

Jeff Samuels: 435/828-6515, 435/781-7046

Brad Burman: 435/828-8006, 435/781-7042

Production Engineer

Robert Miller: 435/781-7041, 435/828-6510

Mickey Doherty: 435/781-9740, 406/491-7294

Ronald Trigo: 435/781-7037, 352/213-6630

Ryckur Schuttler: 435/781-7055, 954/675-1037

Boone Bajgier: 435/781-7096, 713/416-4816

Jake Roberts: 435/781-7015, 716/499-6569

Completion Manager

Jeff Dufresne: 720/929-6281, 303/241-8428

Vernal Main Office

435/789-3342

Vernal IOC

435/781-9751

Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435/789-3342

Police: 435/789-5835

Fire: 435/789-4222

Service Company Supplied Chemicals - Job Totals

Friction Reducer	191	gals @	0.3	GPT
Surfactant	476	gals @	0.75	GPT
Clay Stabilizer	318	gals @	0.5	GPT
15% Hcl	500	gals @	250	gal/stg
Iron Control for acid	3	gals @	5.0	GPT of acid
Surfactant for acid	1	gals @	2.0	GPT of acid
Corrosion Inhibitor for acid	3	gals @	6.0	GPT of acid

Third Party Supplied Chemicals Job Totals - Include Pumping Charge if Applicable

Scale Inhibitor	318	gals pumped	0.5	GPT (see schedule)
Biocide	191	gals @	0.3	GPT

Fracturing Schedules Name NBU 921-21A3AS		Š	Jood was of year	3	Casing Size Recomplete?	4.5 Z			Swabbing Days Production Log	0	Enter 1 if run	Enter Number of swabbing days here for recompletes Enter 1 if running a Production Log	s here tor recomp Log					
Slickwater Frac		Cobs	og wan or	ž	Pad?	\			DFIT	0	Enter Number of DFITs	r of DFITs						
					ACTS?	>			GR only		Enter Y if on	Enter Yif only Gamma Ray log was run	was run					
					Days on Pad?	e ·			Low Scale		Enter Yifa L	OW concentration	Enter Y if a LOW concentration of Scale Inhibitor will be pumped	will be pu	mped			
					Wells on Pad?	4		_	Clay Stab.	*	Enter N If the	Enter N if there will be NO Clay stabilizer	stabilizer					
	Perfs			Rate	Fluid	Initial	Final	Fluid	Volume	Cum Vol	Volume	Cum Vol	Fluid	Sand	Sand	Cum. Sand	Cum. Sand Footage from	Scale
Stage Zone	Top, ft. Bot., ft	ft SPF	F Holes	S BPM	Туре	bdd	bbd		gals	gals	BBLs	BBLs	% of frac	% of frac	c lbs	sql	CBP to Flush	gal.
MESAVERDE	9601 96	9602	ო ი	3 Varie	Varied Pre-Pad & Pump-in test			Slickwater	6,268	6,268	149	149						က
MESAVERDE		8018	n (n c	O ISIP and S min ISIP			Oliologopor	000	4 4 50	0.00	000			*			,
MESAVERDE		9040	n e	n e	50 Slickwater Pad	0.05	0.625	Slickwater	207,900	278 868	4,950 076	5,099	02.5% 5.8%	% 0.0% % 21.9%	% 6.431		o 2	704
MESAVERDE		9711	· m		50 SW Sweep	9	90	Slickwater	8 - 1	228,868	8	5 449						. c
MESAVERDE		9740	· 6		50 Slickwater Ramp	0.63	0.75	Slickwater	14.700	243,568	320		2.8%	-	10.106	16,537		^
MESAVERDE		9755	8	8	50 SW Sweep	0	0	Slickwater	0	243,568	0						_	0
MESAVERDE		926	8	ю	50 Slickwater Ramp	0.25	0.75	Slickwater	0	243,568	0			0.0	%	16,53		0
MESAVERDE					50 Slickwater Ramp	0.75	-	Slickwater	14,700	258,268	320		2.8%		12,862		0	7
MESAVERDE					50 Flush (4-1/2)				6,478	264,745	154	6,303				29,40	0	က
MESAVERDE					ISDP and 5 min ISDP					264,745								132
MESAVERDE																		
MESAVERDE								l Sand laden Volume	ле	252.000								
		_												gal/ft	3,000		350 lbs sand/ft	
	# % %	# of Perfs/stage		24			ı					Flush depth 9,601	9,601		CBP depth 9,586	9,586 1	15	
1001/1001	2000	0000	c	071/	126.1 Se Above pump ume (min)			Oliolomotos										
MESAVERDE		9300	o m	0 K	O SIP and 5 min ISIP			Sickwater		0	>	Þ						
MESAVERDE		9432	· 6		50 Slickwater Pad			Slickwater	305.663	305,663	7.278				%	0	0	153
MESAVERDE		9456	8		50 Slickwater Ramp	0.25	0.625	Slickwater	21,612	327,275	515		2.8%		9,455		2	11
MESAVERDE		9484	က	m	50 SW Sweep	0	0	Slickwater	0	327,275				0.0%			2	0
MESAVERDE		9536	က	က	50 Slickwater Ramp	0.63	0.75	Slickwater	21,612	348,888	Ω	8,307	2.8%		14,859		4	1
MESAVERDE		9553	က		20 SW Sweep	0	0	Slickwater	0	348,888		8,307		0.0	%	24,314	4	0
MESAVERDE	9570 95	9571	က	က	50 Slickwater Ramp	0.25	0.75	Slickwater	0	348,888		8,307		0.0%			4	0
MESAVERDE			_		50 Slickwater Ramp	0.75	_	Slickwater	21,612	370,500		8,821	2.8%	•	18,911		2	11
MESAVERDE					50 Flush (4-1/2)				6,128	376,628	146	8,967				43,22	2	0
MESAVERDE			_		ISDP and 5 min ISDP					376,628								185
MESAVERDE																		
MESAVERDE								Sand laden Volume	ne	370,500								
									!					gal/ft	3,000		350 lbs sand/ft	
	# of Pc	# of Perfs/stage		24								Flush depth 9,387	9,387		CBP depth 9,337	1 9,337	20	
					179.3 << Above pump time (min)													
Totals				48					Total Fluid	641,373 gals 15,271 bbls	gals	15,271 bbls	ppls		Total Sand	72,625	s.	
					5.1							33.9	33.9 tanks			Tota	Total Scale Inhib. =	318
		l																

Name NBU 921-21A3AS Perforation and CBP Summary

	Perforations Ton # Rettor #		rforations			
Stage	Zones	Top, ft	Bottom, ft	SPF	Holes	Fracture Coverage
1	MESAVERDE	9601	9602	3	3	9599.5 to 9804
	MESAVERDE	9618	9619	3	3	
	MESAVERDE	9647	9648	3	3	
	MESAVERDE	9687	9688	3	3	
	MESAVERDE	9710	9711	3	3	
	MESAVERDE	9739	9740	3	3	
	MESAVERDE	9754	9755	3	3	
	MESAVERDE	9797	9798	3	3	
	# of Perfs/stage				24	CBP DEPTH 9,586
2	MESAVERDE	9387	9388	3	3	9380 to 9574
	MESAVERDE	9414	9415	3	3	
	MESAVERDE	9431	9432	3	3	
	MESAVERDE	9455	9456	3	3	
	MESAVERDE	9483	9484	3	3	
	MESAVERDE	9535	9536	3	3	
	MESAVERDE	9552	9553	3	3	
	MESAVERDE	9570	9571	3	3	
	# of Perfs/stage				24	CBP DEPTH 9,337

MD	TVD	INC	MD	TVD	INC
22.01	22.01	0	5681	5652.38	1.31
194.01	194.01	0.26	5776	5747.36	0.94
280.01	280	1.3	5870	5841.35	0.75
362.01	361.96	2.5	5964	5935.35	0.75
452.01	451.84	3.31	6059	6030.34	0.5
542.01	541.6	5.06	6153	6124.34	0.63
632.01	631.11	6.88	6248	6219.33	0.63
722.01	720.31	8.38	6342	6313.33	0.56
812.01	809.12	10.25	6436	6407.32	0.44
902.01	897.47	11.69	6531	6502.32	0.63
992.01	985.52	12.25	6625	6596.31	0.81
1082.01	1073.34	13	6719	6690.3	0.88
1172.01	1161.08	12.75	6814	6785.3	0.88
1262.01	1248.83	12.94	6909	6880.29	0.75
1352.01	1336.6	12.63	7003	6974.28	0.44
1442.01	1424.62	11.44	7098	7069.28	0.19
1532.01	1512.91	10.88	7192	7163.28	0.31
1622.01	1601.21	11.44	7287	7258.28	0.5
1712.01	1689.63	10.06	7381	7352.27	0.69
1802.01	1778.31	9.56	7476	7447.26	0.69
1892.01	1867.07	9.5	7570	7541.26	0.88
1982.01	1955.94	8.69	7664	7635.24	0.88
2072.01	2045.07	7.25	7759	7730.23	1.19
2162.01	2134.37	7.23	7853	7824.21	1.02
2252.01	2223.91	4.56	7948	7919.19	1.31
2342.01	2313.74	2.44	8042	8013.14	2.31
2432.01	2403.68	1.69	8137	8108.1	1.19
2522.01	2403.66		8231	8202.08	1.19
2612.01	2583.66	0.44	8325	8296.05	1.63
2702.01	2673.66	0.13	8420	8391.01	1.56
2718.01	2689.66	0.16	8514	8484.98	1.44
2753	2724.65	0.35	8609	8579.95	1.44
2847 2941	2818.65 2912.65	0.31	8704 8798	8674.92 8768.88	1.63 1.69
3036	3007.65	0.23	8893	8863.83	1.03
3130	3101.64	0.44	8987	8957.78	1.88
3225	3196.64			9051.73	
		0.88 1.13	9081		1.81 1.81
3319 3414	3290.62 3385.61	0.44	9176 9270	9146.69 9240.64	1.75
3508	3479.61	0.44	9365	9335.59	1.73
3603	3574.6	0.69	9459	9429.54	1.86
3697					
	3668.59 3763.58	0.75 1	9553	9523.48	2.06
3792		1.19	9648 9742	9618.43 9712.36	
3886		0.69			
3980	3951.56		9837		
4075	4046.55	0.56	9931	9901.19	
4169	4140.55	0.69	10026	9996.09	
4264	4235.54	1 21	10120		
4358	4329.52	1.31	10214		
4453	4424.5	0.69	10309		
4547	4518.5	0.38	10403	10372.65	2.69
4642	4613.5	0.63	10498		2.81
4736	4707.49	0.88	10593	10562.43	
4831	4802.47	1.19	10687	10656.32	2.81
4925	4896.45	1.5	10781	10750.2	3
5020	4991.43	0.81	10876	10845.08	
5114	5085.42	0.44	10970		3.25
5209	5180.42	0.56	11065	11033.78	
5303	5274.42	0.5	11159		
5398	5369.41	0.5	11230		3.44
5492	5463.41	0.56	11290	11258.4	3.44
5587	5558.41	1.19			

Acid Pickling and H2S Procedures (If Required)

**PROCEDURE FOR PUMPING ACID DOWN TBG

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBLS 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

- 1. PUMP 5-10 BBLS 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
- 2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
- 3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
- 4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
- 5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
- 6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
- 7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

** PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

- 1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
- 2. PUMP 25 BBLS MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
- 3. IF WELL HAS PRESSURE AFTER 2 HOURS RETEST CASING AND TUBING FOR H2S.
- 4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
- 5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

^{**} As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

Form 3160-4 (August 2007)				TMENT	D STATE OF THE I ND MAN	INTERIO						OM	B No. 1	PROVED 004-0137 y 31, 2010
	WELL (COMPL	ETION C	R REC	OMPLE	TION R	EPORT	AND L	.OG			ease Serial l ITU0576	No.	
1a. Type of	Well	Oil Well	⊠ Gas '	Well [Dry	Other					6. If	Indian, All	ottee o	r Tribe Name
b. Type of	f Completion		lew Well	☐ Work	Over	Deepen	☐ Plu	g Back	☐ Diff	. Resvr.	7 11	nit or CA A	greem	ent Name and No.
		Othe	er								L	JTU63047 <i>/</i>	4	
Name of KERR-	Operator MCGEE OIL	_ AND G	AS ONSHŒ	RMEail: Je			ER THON					ease Name a		
	P.O. BOX	173779				3a	. Phone N	o. (include	e area coo	le)	9. A	PI Well No		42.047.50640
4. Location	DENVER, of Well (Rep			ıd in accor	dance with		n: 720-92				10. I	Field and Po	ool. or l	43-047-50610 Exploratory
At surfa	` '	•	L 833FEL 4				•	·/				IATURAL I	BUTTE	ES
	rod interval r		11. S	Sec., T., R., r Area Se	M., or c 21 T	Block and Survey 9S R21E Mer SLB								
		eported b			County or P	arish	13. State							
	At total depth 14. Date Spudded													UT B, RT, GL)*
11/18/2				/03/2012			□ D &	A 2/2015	Ready to	Prod.			55 KB	, , - ,
												dge Plug Se		MD 10276 TVD
	lectric & Oth				it copy of ea	ach)	112			s well core	d?	⋈ No	□ Yes	(Submit analysis)
N/A										s DST run? ectional Su	rvey?	⊠ No ⊠ No	☐ Yes ☐ Yes	s (Submit analysis) s (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	rt all strings	set in wel	(1)									
Hole Size	Size/G	rade	Wt. (#/ft.)	Top (MD)	Botto (MI	1 -	e Cementer Depth	1	f Sks. & of Cemen	t Slurry		Cement 7	Гор*	Amount Pulled
				(WID)	(IVIL	,,	Бериі	Type o	n cemen	(BE	L)			
										_				
										+				
24. Tubing	Record			·							_			•
	Depth Set (M		acker Depth	(MD)	Size	Depth Set	(MD) I	Packer Dep	oth (MD)	Size	De	epth Set (M	D)	Packer Depth (MD)
2.375 25. Produci		0180				26 Perfo	ration Rec	ord						
	ormation		Тор		Bottom		Perforated			Size	1	No. Holes		Perf. Status
A)	MESAVE	RDE		0212	10244			10212 TC	10244	0.4	-		OPEI	
B)														
<u>C)</u>														
D) 27. Acid. Fr	racture, Treat	ment. Cer	nent Squeeze	e. Etc.										
	Depth Interva		1	, =			A	mount and	1 Type of	Material				
			244 PUMP 2	319 BBLS	SLICKWAT	ΓER, 6 BBL	S HCL AC	ID (12.5%-	18%), 10	593 LBS 30	/50 ME	SH SAND		
28. Product	ion - Interval	A												
Date First	Test	Hours	Test	Oil	Gas	Water BBL		ravity	Gas		Product	ion Method		
Produced 10/12/2015	Date 10/16/2015	Tested 24	Production	BBL 0.0	MCF 516.0		2.0 Corr.	API	Gra	vity		FLOV	VS FRO	OM WELL
Choke Size	Tbg. Press. Flwg. 17	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:C Ratio		Wel	ll Status				
64/64	SI 17	2209.0		0	516	96				PGW				
	tion - Interva													
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil G Corr.	ravity API	Gas Gra		Product	ion Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:C Ratio		Wel	ll Status				

⁽See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #322384 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Formation Top Bottom Descriptions, Contents, etc. Name GREEN RIVER	Sundr	ry Numb	er:	67503	API We	ell N	Iumber:	43047	75061	00000	0					
The Position of Total The Posit Total The Position of Total Total	28b Prod	luction - Inter	val C													
Porce Prog. Prog	Date First	Test	Hours								Production Met	hod				
28. Production Interval D Date Tree Date Date Production Date		Flwg.								Well Status	Status					
Date Tread Production Date Tread Production Date	28c. Prod		val D													
Prog. Prog																
SOLD 30. Summary of Porous Zones (include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, custion used, time tool open, flowing and shur-in pressures and recoveries. Formation Top Bottom Descriptions, Contents, etc. Name GREEN RIVER BIRDS NESST MARKER 22 BIRDS NESST MARKER 23 BIRDS NESST MARKER 24 BIRDS NESST MARKER 25 BIRDS NESST MARKER 26 BIRDS NESST MARKER 27 BIRDS NESST MARKER 28 BIRDS NESST MARKER 29 BIRDS NESST MARKER 30 BIRDS NESST MARKER 31 BIRDS NESST MARKER 32 BIRDS NESST MARKER 32 BIRDS NESST MARKER 33 BIRDS NESST MARKER 34 BIRDS NESST MARKER 35 BIRDS NESST MARKER 35 BIRDS NESST MARKER 35 BIRDS NESST MARKER 36 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MARKER 37 BIRDS NESST MA		Flwg.								Well Status	Status					
30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shur-in pressures and recoveries. Formation Top Bottom Descriptions, Contents, etc. Name GREEN RIVER BIRDS NEST BIRDS NEST MAYSOACH MARKER MESAVERDE 32. Additional connects (include phagoing procedure): BIRDS NEST MAYSOACH MARKER MESAVERDE 33. Circle enclosed attachments: 1. Electrical Mechanical Logs (I full set requ.) 5. Sundry Notice for plugging and cement verification 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions): Electronic Submission #322384 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal Title REGULATORY SPECIALIST III Signature (Electronic Submission) Title REGULATORY SPECIALIST III Title IS U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency Title IS U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency Title IS U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency			Sold, used	d for fuel, ven	ted, etc.)					<u>l</u>						
Show all important zones of porosity and contents thereof: Cared intervals and all drill-stem tests, including depth interval rested, cushion used, time tool open, flowing and shut-in pressures Formation Top Bottom Descriptions, Contents, etc. Name Mean GREEN RIVER 1 BIRKS AND MARKER 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 1 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 2 2 BIRKS AND MARKER 2 BIRKS AND MARKER			s Zones (I	nclude Aquife	ers):					31	1. Formation (Log)	Markers				
Same Mean	Show tests,	all important including dep	zones of	porosity and c	ontents there	eof: Corec e tool ope	d intervals an en, flowing an	d all drill-ster nd shut-in pre	m ssures							
32. Additional remarks (include plugging procedure): Recomplete. A CIBP was set at 10,276 ft. and a CBP at 10,272 ft., isolating the Blackhawk Perforations from 10,743 - 11,138 ft. The well produced for a very short time and we have been unable to produce it further. Currently, the well is shut-in. Thank you. 33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Sur 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7. Other: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions): Electronic Submission #322384 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal Name (please print) JENNIFER THOMAS Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency.		Formation		Тор	Bottom		Descript	ions, Content	s, etc.		Nan	ne	Top Meas. Deptl			
33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Sur 5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other: 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions): Electronic Submission #322384 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal Name (please print) JENNIFER THOMAS Title REGULATORY SPECIALIST III Signature (Electronic Submission) Date 11/03/2015	Reco Black	mplete. A CI chawk Perfor	BP was stations from	set at 10,276 om 10,743 -	6 ft. and a 0 11,138 ft. T	he well p	produced for	a very shor			BIRDS NEST MAHOGANY N WASATCH		1723 2019 2350 5039 8237			
Electronic Submission #322384 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal Name (please print) JENNIFER THOMAS Title REGULATORY SPECIALIST III Signature (Electronic Submission) Date 11/03/2015 Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency	1. Ele	ectrical/Mech	anical Log	-	• .		·	•			•	4. Directi	onal Survey			
Electronic Submission #322384 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal Name (please print) JENNIFER THOMAS Title REGULATORY SPECIALIST III Signature (Electronic Submission) Date 11/03/2015 Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency																
Signature (Electronic Submission) Date 11/03/2015 Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency	34. I here	eby certify that	t the foreg	Elect	ronic Subm	ission #3	22384 Verifi	ed by the BL	M Well In	ıformatio	on System.	attached instruct	ions):			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency	Name	e(please print)	JENNIF	ER THOMA	S			Ti	tle <u>REGU</u>	LATORY	Y SPECIALIST II	I				
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.	Signa	iture	(Electro	nic Submiss	ion)			D	ate <u>11/03/</u>	2015						
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.																
	Title 18 U	J.S.C. Section ited States any	1001 and y false, fic	Title 43 U.S. ctitious or frac	C. Section 1 lulent statem	212, mak ents or re	te it a crime for epresentations	or any person s as to any ma	knowingly tter within	y and will its jurisd	lfully to make to and liction.	ny department or	agency			

				U	S ROC	KIES RI	FGION	
							ary Report	
Well: NBU 921-2	1A3AS YELLOW						Spud date: 1/9	/2012
Project: UTAH-U	INTAH		Site: NBL	J 921-21A	PAD			Rig name no.:
Event: RECOMP	L/RESEREVEADD		Start date	e: 9/25/20	15			End date: 10/12/2015
Active datum: Rh	KB @4,855.00usft (ab	ove Mean Se	ea	UWI: NE	E/NE/0/9/	/S/21/E/21	/0/0/26/PM/N/10	17/E/0/833/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
9/25/2015	7:00 - 10:00	3.00	SUBSPR	35		Р		WO 3592 TB 114 CS 272 FL GC Could not get Plunger up w/ Well. Ran w/Down Shear Fish to SN at 10714, latched, pulled Ultra Seal Pad Plunger. Ran in w/Down Shear Fish Tool to SN, latched, pulled Titanium Spring w/Single X-cups and Roll Pin, cups good. Fluid Level is gas cut. Went to next well. Left Spring and Plunger in Sep Bldg for Rig Job. FLUID LEVEL gas cut SEAT NIPPLE DEPTH 10714 SN TYPE Drop Down Menu TD (Max Depth)
9/28/2015	12:00 - 12:45	0.75	SUBSPR	30	Α	Р		MIRU.
	12:45 - 14:00	1.25	SUBSPR	30	F	Р		FCP & FTP = 50#. CNTRL TBNG W/ 20BBLS TMAC. CNTRL CSNG W/ 30BBLS TMAC. NDWH. UN-LAND TBG (NOT STUCK). LAND TBG BACK ON HANGER. FUNCTION TEST BOP. NUBOP. R/U FLOOR & TBG EQUIP. UN-LAND TBG & RMV HANGER. INSTALL WASHINGTON RUBBER. SPOT IN TRAILERS & PIPE WRANGLER.
	14:00 - 17:00	3.00	SUBSPR	31	I	Р		MIRU SCANNERS. POOH WHILE SCANNING 250JTS 2-3/8" P-110 TBNG. L/D ALL TBNG. SWIFN. SDFN. LOCK RAMS.
9/29/2015	7:00 - 7:15	0.25	SUBSPR	48		Р		SAFETY=JSA.
	7:15 - 9:00	1.75	SUBSPR	31	ı	Р		SICP & SITP = 150#. BLOW DOWN TBG & CSNG TO FLOWBACK TANK. R/U SCANNERS. FINISH POOH WHILE SCANNING REM 90JTS 2-3/8" P-110 TBNG. L/D ALL TBNG. SCAN RESULTS AS FOLOWS FOR ENTIRE STRING (340 JTS). Y-BND= 336JTS B-BND= 2JTS DUE TO MINOR WALL LOSS. R-BND = 2JTS DUE TO GUALDED THREADS. LIGHT EXT SCALE THRU ENTIRE STRING. LIGHT INTERNAL SCALE ON LAST 2JTS ABOVE XN NIPPLE.
	9:00 - 10:40	1.67	SUBSPR	34	I	Р		MIRU WIRELINE. P/U & RIH W/ 3.60" GR-JB TO 10,300'. POOH & L/D GR-JB. P/U & RIH W/ OWEN 10K CIBP. SET CIBP @ 10,274'. POOH W/ TOOLS. RDMO E-LINE.
	10:40 - 11:10	0.50	SUBSPR	52	F	Р		R/D FLOOR & TBG EQUIP. NDBOP. NUFV. LOAD 4-1/2" PRODUCTION CSNG W/ 138BBLS TMAC. PRESSURE TEST FRAC VALVE & 4-1/2" CSNG GOOD @ 3000#. HAD TO BUMP PREESURES UP TWICE DUE TO GAS IN CSNG. FINAL TEST LOST 5# IN 10MIN. FINAL PRESSURE TEST WILL BE PERFORMED WHEN ALL WELLS HAVE BEEN PREPPED. BLEED OFF PRESSURE. SWI.
	11:10 - 12:00	0.83	SUBSPR	30	С	Р		RDMO.

10/28/2015 9:37:55AM 1

Sundry Number: 67503 API Well Number: 43047506100000 **US ROCKIES REGION Operation Summary Report** Well: NBU 921-21A3AS YELLOW Spud date: 1/9/2012 Project: UTAH-UINTAH Site: NBU 921-21A PAD Rig name no.: Event: RECOMPL/RESEREVEADD End date: 10/12/2015 Start date: 9/25/2015 UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0 Active datum: RKB @4,855.00usft (above Mean Sea P/U Date Phase Time Duration Code Sub MD from Operation Start-End (hr) Code (usft) 9/30/2015 14:30 - 15:25 0.92 SUBSPR 34 Ρ MIRU E-LINE. P/U & RIH W/ HAL 10K CBP. PRESSURE UP 4-1/2" PRODUCTION CSNG TO 3000#. SET CBP UNDER PRESSURE @ 10,270' W/ 3K PSI. POOH E-LINE. RDMO E-LINE. SWI. 15:25 - 15:40 0.25 **SUBSPR** 52 MIRU P/T TRUCK, PRESSURE TEST 4-1/2" PRODUCTION CSNG & FRAC VALVE GOOD @ 7000#. LOST 49PSI IN 15MIN. PUMP 1/2BBL TMAC INTO SURFACE CSNG. P/T SURFACE CSNG @ 1000#. LOST 15# IN 10MIN. BLEED OFF PSI. SWI. 8:00 - 9:00 10/1/2015 1.00 **FRAC** Ε Р RU EL PERFED 1ST STG AS DESIGNED POOH **SWIFW** 7:00 - 15:00 10/6/2015 8.00 **FRAC** 36 Ε Ρ HSM, MIRU FRAC CREW, P/T PUMPS & LINES TO 8000 PSI, HAVING TROUBLE GETTING P/T, GOING TO LET FRAC CREW REBIULD PUMPS & GET P/T, FRAC IN AM, SDFN 10/7/2015 5:45 - 6:00 0.25 **FRAC** Ε Ρ HSM, SLIPS, TRIPS & FALLS, RUSHING 6:00 0.00 Ε **FRAC** 36 Р P/T TO 8000 PSI, LOST 399 PSI IN 15 MIN, FRAC STG #1) WHP 1920 PSI, BRK 4065 PSI @ 2.7 BPM. ISIP 3382 PSI, FG. 0.77 ISIP 3893 PSI, FG. 0.83, NPI 511 PSI. X/O TO W/L SET HAL 8K CBP AS PER DESIGN WATER: 2325 BBLS SAND: 10593 # SCALE: 43 GAL BIO: 30 GAL **RDMO** 10/9/2015 12:00 - 17:00 5.00 **DRLOUT** Ρ RU RIG. OPEN WELL 0 PSI. ND WH. NU BOP. RU RIG FLOOR & TBG EQUIP.

10/28/2015 9:37:55AM 2

10/12/2015

6:45 - 7:00

- 9:00

7:00

0.25

2.00

DRLOUT

DRLOUT

31

PREP & TALLY NEW 23/8 P-110 TBG.

RU W/ 224 JTS TBG, EOT @ 7108'.

TAG SAND W/ 319 JTS P-110 @ 10,125'. 1st CBP)TAG SAND @ 10,125' = 29' SAND.

XN.

SWIFWE.

OPEN WELL 0 PSI. CONT RIH W/ TBG F/ 7108'.

HSM.

PU 37/8 BIT, X-DART, PUMP OPEN BIT SUB & 1.875

Sundry Number: 67503 API Well Number: 43047506100000 **US ROCKIES REGION Operation Summary Report** Spud date: 1/9/2012 Well: NBU 921-21A3AS YELLOW Project: UTAH-UINTAH Site: NBU 921-21A PAD Rig name no.: Event: RECOMPL/RESEREVEADD End date: 10/12/2015 Start date: 9/25/2015 UWI: NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0 Active datum: RKB @4,855.00usft (above Mean Sea Date Phase P/U Operation Time Duration Code Sub MD from Start-End (hr) Code (usft) 9:00 - 12:00 3.00 DRLOUT 44 С Ρ RU DRL EQUIP. FILL TBG. P/T BOP T/ 3000 PSI. GOOD TEST. BLEED OFF PSI. BK CONV CIRC. BEG DRL OUT. 1st CBP)TAG SAND @ 10,125' = 29' SAND. DRL OUT CBP @ 10,154' IN 10 MIN. 1400 PSI INCR. CONT CO T/ 10,264'. CIRC WELL. POOH LD 3 JTS TBG. PU 41/16 TBG HNGR. LAND TBG W/ 321 JTS 23/8 P-110 TBG W/ 1.875 XN W/ PUMP OPEN BIT SUB. EOT @ 10,180'. RD TBG EQUIP & RIG FLOOR. ND BOP, NU WH. DROP BALL. LET BALL FALL FOR 45 MIN. P/T HAL 9000 LINES T/ 3000 PSI. GOOD TEST. BLEED OFF PSI. RIG PUMP T/TBG, PUMP BIT OPEN W/3700 PSI. OPEN TBG T/ FBT. SICP = 2260 PSI. FTP = 50 PSI. CSG PSI DROPPED OFF VERY FAST (5 MIN CSG @ TURN WELL OVER T/FBC. RD RIG & SLIDE RIG T/ 21A2DS. 10/13/2015 8:45 - 9:00 0.25 DRLOUT 48 HSM. 9:00 - 12:00 3.00 DRLOUT 33 RU FOAM UNIT W/ N2 T/ TBG. NULOAD WELL IN 1hr. RECOVERD 120 BBLS T/ FBT. SHUT DOWN PUMPING. PURGE WELL ON BOTH ATTEM T/ SELL GAS. WELL WOULD NOT SALE. LET WELL FLOW T/ FBT. 10:00 - 12:00 10/14/2015 2.00 **DRLOUT** 33 BLOW CSG DOWN. RU FOAM UNIT / N2 UNIT T/ CSG. UNLOAD WELL, 1hr 30 min T/ UNLOAD WELL. 25 - 30 BBLS RECOVERD.

10/28/2015 9:37:55AM 3

RECEIVED: Nov. 03, 2015

SHUT DOWN PUMPING.

SHUT IN CSG. OPEN TBG T/ FBT ON OPEN CHOKE.

US ROCKIES REGION

General

Customer Information

Company	US ROCKIES REGION
Representative	
Address	

Well/Wellbore Information

Well	NBU 921-21A3AS YELLOW	Wellbore No.	00						
Well Name	NBU 921-21A3AS	Wellbore Name	NBU 921-21A3AS						
Report no.	1	Report date	9/25/2015						
Project	UTAH-UINTAH	Site	NBU 921-21A PAD						
Rig Name/No.		Event	RECOMPL/RESEREVEADD						
Start date	9/25/2015	End date	10/12/2015						
Spud date	1/9/2012	Active datum	RKB @4,855.00usft (above Mean Sea Level)						
UWI	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/83	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833/0/0							

General

Contractor	Job method	Supervisor	
Perforated Assembly	Conveyed method		

Initial Conditions

Summary 1.5

Fluid type		Fluid density	Gross Interval	10,212.0 (usft)-10,244.0 (u	Start Date/Time	9/25/2015	12:00AM
Surface press.		Estimate res press	No. of intervals	4	End Date/Time	9/25/2015	12:00AM
TVD fluid top		Fluid head	Total shots	24	Net perforation interval		8.00 (usft)
Hydrostatic press.		Press. difference	Avg. shot density	3.00 (shot/ft)	Final surface pressure		
Balance Cond	NEUTRAL				Final press. date		

Intervals

Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base	Shot density (shot/ft)		Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
9/25/2015 12:00AM	MESAVE RDE/			10,212.0			Silot	0.410	EXP/1	3.125	120.00	manudeturer		PRODUCTION		

RECEIVED: Nov. 03, OpenWells 2015 November 03, 2015 at 9:05 am

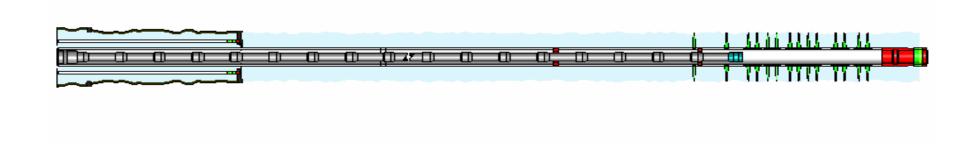
US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/	CCL@	CCL-TS	MD	MD	Shot	Misfires/	Diameter	Carr type /Stage No	Carr	Phasing	Charge desc.	Charge	Reason	Misrun	How Guns
	Reservoir	(usft)	(usft)	top	base	density	Add.	(in)		size	(°)	/Charge	weight			Conveyed
				(usft)	(usft)	(shot/ft)	Shot			(in)		manufacturer	(gram)			
9/25/2015	MESAVE			10,222.0	10,224.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
12:00AM	RDE/															
9/25/2015	MESAVE			10,230.0	10,232.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
12:00AM	RDE/															
9/25/2015	MESAVE			10,242.0	10,244.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
12:00AM	RDE/															

3 Plots

3.1 Wellbore Schematic



	STATE OF UTAH			FORM 9
ι	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		1	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0576
SUNDR	Y NOTICES AND REPORTS	S ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	posals to drill new wells, significant reenter plugged wells, or to drill hori: n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 921-21A3AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047506100000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1017 FNL 0833 FEL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NENE Section: 2	HIP, RANGE, MERIDIAN: 21 Township: 09.0S Range: 21.0E Me	ridian: \$	S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	₹T, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	RACTURE TREAT	☐ NEW CONSTRUCTION
12/1/2015	OPERATOR CHANGE		PLUG AND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION
Report Date:			I IA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION		OTHER	OTHER:
The NBU 921-21A	COMPLETED OPERATIONS. Clearly sho 3AS well was returned to pollowing a recomplete. That	produ	ction on 12/1/2015	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 02, 2015
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUM 720 929-6808	MBER	TITLE Regulatory Specialist	
SIGNATURE N/A			DATE 12/2/2015	

Form 3160-4 (August 2007)			DEPAR BUREA	TMEN	T OI		INTE									ON	⁄IВ No. 1	PROVED 004-0137 y 31, 2010
	WELL (COMPL	ETION C	R RE	CO	MPLE	TIO	N RE	EPOI	RT.	AND L	.OG				ease Serial	No.	
1a. Type of	f Well 🔲	Oil Well	⊠ Gas '	Well	_ I	Ory	Oti	her							6. If	Indian, A	lottee o	r Tribe Name
b. Type of	f Completion	_	ew Well er	☐ Wor	k Ov	er [Dee	epen	<u> </u>	Plug	Back		iff. R	esvr.		nit or CA		ent Name and No.
2. Name of KFRR-	Operator MCGEE OIL	AND G	AS ONSH ®	RM Fail: J	ennit	Contac					AS				8. Le	ease Name	and We	
	P.O. BOX	173779		ran. o	-		TIGO C	3a.	Phone	e No	(include	e area	code)			PI Well N		
4. Location	DENVER, of Well (Re			d in acc	ordar	nce with	Feder		: 720-						10. F	Field and F	Pool, or	43-047-50610 Exploratory
At surfa	Sec 21 ce NENE	T9S R2 1019FNI	1E Mer ŠLE _ 778FEL 4	0.02606			9.550	279 V	N Lon	, 1					N	IATURAL	BUTTI	
At top p	rod interval r		elow	21 T9S	R21	IE Mer									O	r Area Se	ec 21 T	9S R21E Mer SLB
At total		21 198	R21E Mer													County or I	Parish	13. State UT
14. Date Sp 11/18/2				ate T.D. /03/201		ched) & <i>I</i>	Complete A 🛮	ed Ready	y to P	rod.	17. E		(DF, KI 855 KB	B, RT, GL)*
18. Total D															oth Bri	dge Plug S		MD 9828 TVD
21. Type E. N/A	Electric & Other Mechanical Logs Run (Submit copy of each) 22. Was well Was DST Directions												OST run?		⊠ No ⊠ No ⊠ No	☐ Yes	s (Submit analysis) s (Submit analysis) s (Submit analysis)	
23. Casing ar	nd Liner Reco	ord (Repo	rt all strings	set in w	ell)													1
Hole Size	Size/G	rade	Wt. (#/ft.)	Top (ME		Botto (MI	- 1	_	Cemei Depth	nter	No. o	f Sks. of Cen		Slurry (BB		Ol. Cement Top*		Amount Pulled
-																		
										_								
24. Tubing	Record			<u> </u>										<u> </u>				l
	Depth Set (M	(ID) P	acker Depth	(MD)	Si	ze	Depth	Set (I	MD)	Pa	ıcker Dej	oth (M	ID)	Size	De	pth Set (M	ID)	Packer Depth (MD)
2.375 25. Producin		9583					26.1	Dorfor	ation F	Paggi	·d							
			Тор		D ₀	ttom	20.1							Size	\Box	No. Holes		Perf. Status
A)	ormation MESAVE	RDF		8237	ВО	11290		1	enora	ileu i	nterval 9387 T	O 979	98	0.4	_		3 OPEI	
B)	111207112			0201		11200					0007 1	0 01 0		0.1	<u> </u>		<u> </u>	
C)																		
D)																		
	racture, Treat		nent Squeeze	e, Etc.								1.77	C 3 /	1				
	Depth Interva	87 TO 97	708 PUMP 1	5292 BF	81 S S	SLICKWA	ATFR	12 BB	SI S 15		nount and			30/50 ME	SH SA	ND		
		01 10 01	50				,				,							
	ion - Interval		Im .	0.1			Lvv	, .	T _o	27.6			<i>C</i>		D 1	on Method		
Date First Produced 12/02/2015	Test Date 12/23/2015	Hours Tested 24	Test Production	Oil BBL 0.0		Gas MCF 813.0	Bl	ater BL 108.0	C	Oil Gra Corr. A			Gas Gravity	,	Producti		\\\\S FR(OM WELL
Choke	Tbg. Press.	Csg.	24 Hr.	Oil	\dashv	Gas	_	ater	-	Gas:Oi			Well St	atus		1 20	*****	JW WELL
Size 28/64		Press. 794.0	Rate	BBL 0		MCF 813		BL 108	R	Ratio				'GW				
28a. Produc	tion - Interva	l B																
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF		ater BL		Oil Gra Corr. A			Gas Gravity	,	Producti	on Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF		ater BL		Gas:Oi Ratio	l		Well St	atus				

⁽See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #327505 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

28h Prod	luction - Interv	al C									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Grav	ity	Production Method	
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well	Status		
28c. Prod	luction - Interv	al D					<u> </u>				
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Grav	ity	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well	Status		
	osition of Gas(Sold, used	for fuel, vent	ed, etc.)		I	I	<u> </u>			
30 Sumr	nary of Porous	Zones (Ir	clude Aquife	rs):					31. Fo	ormation (Log) Markers	
Show tests,	all important	zones of p	orosity and c	ontents the	ereof: Core ne tool ope	d intervals and a en, flowing and s	ıll drill-stem shut-in pressure	s			
	Formation		Top	Bottor	n	Description	s, Contents, etc	:.		Name	Top Meas. De
Reco	tional remarks Implete. A co Irations from	mposite s	solid plua wa	is set at 9	828 ft., iso	plating the Mes	saverde		B M W	REEN RIVER IRDS NEST AHOGANY MARKER VASATCH ESAVERDE	1723 2019 2350 5039 8237
1. El- 5. Su	e enclosed atta- ectrical/Mecha andry Notice for the certify that	nical Log r plugging	g and cement oing and attac	verificatio	nation is co	2. Geologic I 6. Core Anal mplete and corr 27505 Verified	ysis ect as determin	7 ed from al		le records (see attached in	Directional Survey
None	e(please print)	IENINIIEI]	For KERI	R-MCGEE	E OIL AND GA	S ONSHORE,	sent to tl	he Verna	PECIALIST III	
rvaine	(piease print)									LOIALIOT III	
Signa	ture	(Electror	nic Submissi	on)			Date <u>1</u>	2/30/201	5		
	J.S.C. Section										

				U	S ROC	KIES RE	EGION	
				Opera	tion S	Summa	ry Report	
/ell: NBU 921-2	21A3AS YELLOW						Spud date: 1/9	9/2012
roject: UTAH-L	JINTAH		Site: NBU	J 921-21A	PAD			Rig name no.:
vent: RECOMF	PL/RESEREVEADD		Start date	: 11/6/20	15			End date: 12/2/2015
ctive datum: R evel)	KB @4,855.00usft (a	bove Mean S	ea	UWI: NE	E/NE/0/9/	/S/21/E/21/	/0/0/26/PM/N/10	017/E/0/833/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
11/2/2015	7:00 - 7:15	0.25	SUBSPR	48		Р		HSM-JSA
	7:15 - 17:00	9.75	SUBSPR	31	l	Р		SICP 250 PSI, CNTRL WELL W/ 20 BBLS TMAC, NDWH, NUBOP, UNLAND TBG, PU 3 JTS TBG RIH TAG FILL @10257', LD 3 JTS TBG, SPOT TBG TRLR, POOH LD 321 JTS 2 3/8" P-110 TBG, RD FLOOR & TBG EQUIP, NDBOP, NUFV, SWI, SDFN.
11/4/2015	15:00 - 16:00	1.00	SUBSPR	34	I	Р		MIRU CUTTERS WIRELINE, RIH W/ 10K CBP SET @ 9828'
11/5/2015	10:00 - 12:00	2.00	SUBSPR	52	Α	Р		FILL CSG W/ WTR, MIRU CAMERON TEST TRUCK, TEST CSG & FRAC VALVES TO 7000 PSI, LOST 30 PSI IN 15 MIN, SWI, SDFN.
11/6/2015	14:00 - 17:30	3.50	SUBSPR	37	E	Р		RIH W/ GUN PERF STG #1 OF PHASE 2 AS DESIGNED, POOH, SWI, RDMO CUTTERS WIRELINE, SDFN.
11/23/2015	6:00 - 0:00	18.00	FRAC	36	Н	Р		HSM, PRESSURD TESTED LINES. TO 8555 PSI, LOST 830 PSI IN 15 MIN.
								FRAC STAGE 1)WHP 1674 PSI, BRK 5246 PSI @ 2.8 BPM. ISIP 3040 PSI, FG. 0.75 ISIP 3593 PSI, FG. 0.81, NPI 553 PSI.
								SET HAL 8K CBP & PERF STG #2 AS DESIGNED
11/24/2015	0:00 - 2:30	2.50	FRAC	46	F	Z		WAIT FOR WATER TRANSFER CREW TO PUMP WATER TO LOC
	2:30 - 5:45	3.25	FRAC	36	Н	Р		FRAC STG #2) WHP 3035 PSI, BRK 5199 PSI @ 3.3 BPM. ISIP 3335 PSI, FG. 0.79 ISIP 3283 PSI, FG. 0.79, NPI -52 PSI.
								CROSS OVER TO WIRELINE.
								TOTAL FLUID; 15,304 BBLS TOTAL SAND; 72,464#
	5:45 - 13:45	8.00	FRAC	46	F	Z		WAIT FOR WATER TRANSFER CREW TO PUMP WATER TO LOC
11/30/2015	7:00 - 7:15	0.25	DRLOUT	48		Р		SAFETY = JSA.
	7:15 - 8:00	0.75	DRLOUT	30	С	Р		RDMO NBU 921-21A2DS. SLIDE RIG OVER TO NEXT WELL.
	8:00 - 9:00	1.00	DRLOUT	30	Α	Р		MIRU. SPOT IN PIPE WRANGLER & PIPE RACKS.
	9:00 - 9:30	0.50	DRLOUT	30	F	Р		SICP= 0#. NDWH. NUBOP. FUNCTION TEST BOP. N/U FLOWLINE.
12/1/2015	9:30 - 16:00 7:00 - 7:15	6.50 0.25	DRLOUT	31	I	P P		PREP & TALLY TBNG ON THE PIPE RACKS. P/U & RIH W/ 3-7/8" BIT, PUMP OPEN SUB, 1.875" XN & 295JTS 2-3/8" P-110 TBNG. T/U ON KILL CBP @9337'. R/U POWER SWIVEL. PUH 1JT. SWIFN. LOCK RAMS. WINTERIZE EQUIP. SDFN. SAFETY = JSA.
12/1/2010	7:15 - 7:40	0.42	DRLOUT	52	F	P		
	7.40	0.42	DIVEOUT	52	1			0# ON WELL. BREAK CONV CIRC W/ TMAC. P/T CSNG & BOP GOOD @ 3000#. BLEED OFF PRESSURE.

12/30/2015 2:41:29PM 1

	<u> Number:</u>					KIES RI					
				Opera	ation S	umma	ary Report				
Well: NBU 921-	21A3AS YELLOW						Spud date: 1/9	9/2012			
Project: UTAH-L	JINTAH		Site: NBL	J 921-21 <i>F</i>	A PAD			Rig name no.:			
Event: RECOMI	PL/RESEREVEAD	D	Start date	e: 11/6/20	15			End date: 12/2/2015			
Active datum: R Level)	KB @4,855.00usft	(above Mean S	ea	UWI: NI	E/NE/0/9/	S/21/E/21	/0/0/26/PM/N/10	017/E/0/833/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation			
	7:40 - 11:00	3.33	DRLOUT	44	C	P		D/O 2 CBP'S AND C/O TO PBTD AS FOLLOWS: #1 CBP @9337'. D/O IN 11 MIN W/ 800# DIFF PRESSURE. FCP= 200#. CONT RIH W/ TBNG. C/O 20' SAND. T/U ON NEXT CBP. #2 CBP @9586'. D/O IN 17 MIN W/ 900# DIFF PRESSURE. FCP= 850#. CONT RIH W/ TBNG. C/O 15' SAND. T/U ON ISOLATION PLUG @ 9826' W/ 310JTS TBNG + BHA. CIRC WELL CLEAN. R/D POWER SWIVEL. POOH WHILE L/D 8JTS TBNG NOT NEEDED FOR PRODUCTION. LUBE IN HANGER. LAND TBNG. R/D FLOOR & TBNG EQUIP. NDBOP. NUWH. PRESSURE TEST FLOWLINES GOOD @ 3000#. PUMP OPEN BIT SUB @ 3400# W/ 30BBLS TMAC. SICP= 2350#. SITP= 2100#. TURN WELL OVER TO FLOWBACK CREW. PRODUCTION TBNG LANDED AS FOLLOWS: K.B.= 26.00' HANGER= .83' 301JTS 2-3/8" P-110 Y-BND TBNG= 9520.96' 1.875" XN= 1.34' 1JT 2-3/8" P-110 Y-BND TBNG= 31.66' PUMP OPEN SUB=2.20' EOT @9582.99' XN @9547.79' TOTAL FLUID PUMPED = 15,304BBLS RIG RECOVERED = 800BBLS TWLTR= 14,504BBLS			
	11:00 - 11:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 11:00 HR ON 12/2/2015. 1.8 MCFD, 2400 BWPD, FCP 1964#, FTP			

12/30/2015 2:41:29PM 2

RECEIVED: Dec. 30, 2015

1600#, 28/64 CK.

US ROCKIES REGION

General

Customer Information

Company	US ROCKIES REGION
Representative	
Address	

Well/Wellbore Information

Well	NBU 921-21A3AS YELLOW	Wellbore No.	00
Well Name	NBU 921-21A3AS	Wellbore Name	NBU 921-21A3AS
Report no.	1	Report date	11/23/2015
Project	UTAH-UINTAH	Site	NBU 921-21A PAD
Rig Name/No.		Event	RECOMPL/RESEREVEADD
Start date	11/6/2015	End date	12/2/2015
Spud date	1/9/2012	Active datum	RKB @4,855.00usft (above Mean Sea Level)
UWI	NE/NE/0/9/S/21/E/21/0/0/26/PM/N/1017/E/0/833	3/0/0	·

General

Contractor	Job method	Supervisor	
Perforated Assembly	Conveyed method		

Initial Conditions

Summary 1.5

Fluid type		Fluid density	Gross Interval	9,387.0 (usft)-9,798.0 (usft	Start Date/Time	11/23/2015 12:00AM
Surface press.		Estimate res press	No. of intervals	16	End Date/Time	11/23/2015 12:00AM
TVD fluid top		Fluid head	Total shots	48	Net perforation interval	16.00 (usft)
Hydrostatic press.		Press. difference	Avg. shot density	3.00 (shot/ft)	Final surface pressure	
Balance Cond	NEUTRAL				Final press. date	

Intervals

Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top	MD base	Shot	Misfires/	Diameter (in)	Carr type /Stage No	Carr size	Phasing (°)	Charge desc. /Charge	Charge weight	Reason	Misrun	How Guns Conveyed
		, ,	,	(usft)	(usft)	(shot/ft)	Shot	,		(in)	,	manufacturer	(gram)			, , , ,
11/23/201	MESAVE			9,387.0	9,388.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
5	RDE/															
12:00AM																

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US ROCKIES REGION

Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
11/23/201 5 12:00AM	MESAVE RDE/			9,414.0	9,415.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
11/23/201 5 12:00AM	MESAVE RDE/			9,431.0	9,432.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
11/23/201 5 12:00AM	MESAVE RDE/			9,455.0	9,456.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
11/23/201 5 12:00AM	MESAVE RDE/			9,483.0	9,484.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,535.0	9,536.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,552.0	9,553.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,570.0	9,571.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,601.0	9,602.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,618.0	9,619.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,647.0	9,648.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,687.0	9,688.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,710.0	9,711.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,739.0	9,740.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
	MESAVE RDE/			9,754.0	9,755.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0

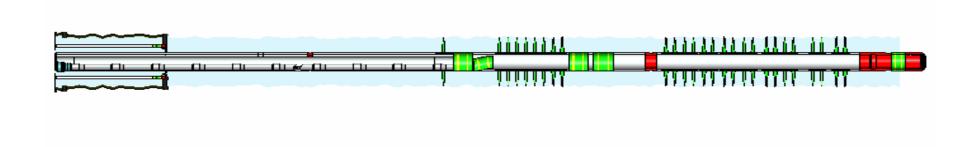
US ROCKIES REGION

2.1 Perforated Interval (Continued)

Date	Formation/	CCL@	CCL-TS	MD	MD	Shot	Misfires/	Diameter	Carr type /Stage No	Carr	Phasing	Charge desc.	Charge	Reason	Misrun	How Guns
	Reservoir	(usft)	(usft)	top	base	density	Add.	(in)		size	(°)	/Charge	weight			Conveyed
				(usft)	(usft)	(shot/ft)	Shot			(in)		manufacturer	(gram)			
11/23/201	MESAVE			9,797.0	9,798.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		0
5	RDE/															
12:00AM																

3 Plots

3.1 Wellbore Schematic



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